

Registration No. 333-101661

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 UNITED STATES  
 SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549  
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Amendment No. 1  
 to  
 Form SB-2  
 Registration Statement  
 under  
 the Securities Act of 1933

DELCATH SYSTEMS, INC.  
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(Exact name of Registrant as specified in its charter)

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 Delaware 3841 06-1245881  
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(State or Other Jurisdiction of Incorporation or Organization) (Primary Standard Industrial Classification Code Number) (I. R. S. Employer Identification No.)

1100 Summer Street  
 Stamford, Connecticut 06905  
 (203) 323-8668  
 (Address, including zip code, and telephone number, including area code, of registrant's executive offices)  
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M. S. KOLY  
 President and Chief Executive Officer  
 Delcath Systems, Inc.  
 1100 Summer Street  
 Stamford, Connecticut 06905  
 (203) 323-8668  
 (Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications, including communications sent to the agent for service of process, should be sent to:

Paul G. Hughes Cummings & Lockwood LLC Four Stamford Plaza 107 Elm Street Stamford, CT 06902 203-351-4207	Brian C. Daughney Goldstein & DiGioia, LLP 45 Broadway, 11th Floor New York, NY 10006 212-599-3322
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APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: as soon as practicable after the registration statement becomes effective.

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, check the following box  / /

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 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 this Form is a post-effective amendment file pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act Registration Statement number of the earlier registration statement for the same offering. / /

If delivery of the prospectus is expected to be made pursuant to Rule 434 under the Securities Act, please check the following box. / /

Title of each class of securities to be registered	Proposed maximum aggregate offering price (1)	Amount of registration fee
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Units, consisting of 5 shares of common stock, par value \$.01 per share, and 5 warrants each to	\$3,450,000	\$318 (8)
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purchase 1 share of common stock (2)  
Common Stock, \$0.01 par value (3)  
Warrants to purchase shares of common stock (4)  
Shares of common stock underlying the warrants included in  
the units (5)(6)  
Underwriters warrants to purchase units (7)  
Units, consisting of 5 shares of common stock and 5  
warrants each to purchase 1 share of common stock (5)  
Common stock, \$0.01 par value (3)  
Warrants to purchase shares of common stock (4)  
Units issuable upon exercise of the underwriters warrants (7)  
Shares of common stock underlying the warrants issuable upon  
exercise of the warrants underlying the underwriters  
warrants (5)

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- (1) Estimated solely for purposes of determining the registration fee pursuant to Rule 457 under the Securities Act.
- (2) Includes units issuable upon exercise of underwriters' over-allotment option.
- (3) Consists of shares of common stock included in the units registered hereby.
- (4) Consists of warrants included in the units registered hereby. The warrants are offered as a component of the units for no additional consideration.
- (5) Pursuant to Rule 416 under the Securities Act, this Registration Statement also registers (i) any additional shares of common stock that become issuable upon exercise of the warrants and (ii) any additional units that become exercisable upon the exercise of the underwriters warrants to purchase units, in each by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration which results in an increase in the number of the outstanding shares of common stock.
- (6) Includes shares issuable pursuant to the exercise of the underwriters over-allotment option.
- (7) No registration fee required pursuant to Rule 457(g) under the Securities Act.
- (8) The registration fee was previously paid when the Registration Statement was originally filed.

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 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE

ON SUCH DATE AS THE SECURITIES AND EXCHANGE COMMISSION, ACTING PURSUANT TO SAID SECTION 8(a), MAY DETERMINE.

CROSS REFERENCE SHEET

Showing Location in Prospectus of Information Required by Items of Form SB-2

REGISTRATION STATEMENT ITEM NUMBER AND HEADING	LOCATION IN PROSPECTUS
1. Forepart of Registration Statement and Outside Front Cover Page of Prospectus	Outside Front Cover Page
2. Inside Front and Outside Back Cover Pages of Prospectus	Inside Front and Outside Back Cover Pages of Prospectus
3. Summary Information and Risk Factors	Prospectus Summary; Risk Factors
4. Use of Proceeds	Use of Proceeds
5. Determination of Offering Price	Underwriting
6. Dilution	Not Applicable
7. Selling Security Holders	Not Applicable
8. Plan of Distribution	Outside Front Cover Page Prospectus; Underwriting
9. Legal Proceedings	Business
10. Directors, Executive Officers, Promoters and Control Persons	Management
11. Security Ownership of Certain Beneficial Owners and Management	Principal Stockholders
12. Description of Securities	Description of Our Capital Stock
13. Interests of Named Experts and Counsel	Validity of Common Stock; Experts
14. Disclosure of Commission Position of Indemnification for Securities Act Liabilities	Description of Our Capital Stock
15. Organization Within Last Five Years	Related Party Transactions
16. Description of Business	Business
17. Management's Discussion and Analysis or Plan of Operation	Plan of Operation
18. Description of Property	Business
19. Certain Relationships and Related Transactions	Related Party Transactions
20. Market for Common Equity and Related Stockholder Matters	Market for Common Equity and Related Stockholder Matters
21. Executive Compensation	Management
22. Financial Statements	Index to Consolidated Financial Statements and Financial Statement Schedule
23. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure	Changes In and Disagreements with Accountants on Accounting and Financial Disclosure

SUBJECT TO COMPLETION, DATED MARCH 17, 2003.

[LOGO - DELCATH SYSTEMS, INC.]

\_\_\_\_\_ Units

This is a public offering of \$3 million of our securities. Our securities are being offered in units, with each unit consisting of (i) five shares of our common stock and (ii) five 2003 Warrants each to purchase one share of our common stock. The common stock and 2003 Warrants will trade separately immediately following the sale of the units.

Each 2003 Warrant entitles the holder to purchase one share of our common stock at a price of 25% of the unit offering price. The exercise price of our 2003 Warrants is subject to adjustment, including anti-dilution provisions for corporate events, such as stock splits. Under certain circumstances, we have the right to redeem the 2003 Warrants.

There is presently no public market for the 2003 Warrants. Our common stock is currently traded on the Nasdaq Small Cap Market under the symbol "DCTH" and on the Boston Stock Exchange under the symbol "DCT." At March 12, 2003, our common stock had a closing price of \$1.13 per share and our 2000 Warrants had a closing price of \$0.24 per Warrant on the Nasdaq Small Cap Market. The actual initial public offering price of the units will be based upon the market price of our common stock and by negotiations between Roan/Meyers Associates, L.P., as the representative of the underwriters, and us.

We have applied for listing of our 2003 Warrants on the Nasdaq Small Cap Market and the Boston Stock Exchange under the symbols " " and " ," respectively, and the listing of the additional shares of our common stock contained in the units. We may not be able to meet the listing requirements for the Nasdaq Small Cap Market or the Boston Stock Exchange in which event the underwriters may not proceed with the offering.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 4 for factors you should consider before investing in our securities.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

	Per Unit	Total
Public offering price		
Underwriting discount		
Proceeds, before expenses		

We estimate the expenses of this offering will be approximately \$720,000, which will include a non-accountable expense allowance of 3% of the gross proceeds of this offering payable to the representative of the underwriters. We have granted the underwriters a 45-day option to acquire up to an additional 15% of the units to cover over-allotments.

The underwriters expect to deliver the securities to purchasers on or about , 2003.

ROAN/MEYERS ASSOCIATES, L.P. VIEWTRADE SECURITIES, INC.

The date of this prospectus is , 2003

The information in this preliminary prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

## PROSPECTUS SUMMARY

Prospectus Summary The following is a summary that highlights information contained elsewhere in this prospectus. You should read the entire prospectus, including "Risk Factors" beginning on page 4 and our financial statements (including the notes) carefully before making an investment decision.

Except as otherwise noted, the information contained in this prospectus assumes that the underwriters' overallotment option is not exercised.

References in this prospectus to the "2003 Warrants" refer to the warrants included in the units offered hereby. References in this prospectus to the "2000 Warrants" refer to the warrants included in the units offered in our initial public offering.

### OUR BUSINESS

We have developed a drug-delivery system which is designed to isolate the liver from the general circulatory system and to administer chemotherapy and other therapeutic agents directly to the liver. Using the Delcath system, blood flowing into the liver is:

- o infused with the chemotherapy agents;
- o redirected out of the patient's body;
- o passed through filters which remove most of the chemotherapy agents; and
- o returned to the patient's general circulatory system.

Isolating the liver and filtering the blood before it is returned to the patient's circulatory system helps protect other parts of the body from the harmful side effects of chemotherapy agents while allowing higher dosages of chemotherapy agents to be administered to the diseased organ. While the current "gold standard" treatment option for liver tumors is surgery, many tumors are inoperable due to a combination of poor patient health and/or inability to remove the tumor because of its location. Even if a tumor is surgically removed, in the event of a recurrence, surgery typically cannot be repeated. We believe that the use of the Delcath system for delivering chemotherapy agents to the liver will allow treatment of tumors in patients with poor health and inoperable tumors and will permit multiple treatments in the event of a recurrence. We also believe that the Delcath system may provide cost savings in the treatment of liver cancer to the extent that it can reduce treatment and hospitalization costs associated with the side-effects of chemotherapy agents.

The Delcath system is not currently approved for marketing by the United States Food and Drug Administration, and it cannot be marketed in the United States without FDA pre-marketing approval. With the proceeds of this offering, we plan to conduct Phase III clinical trials to demonstrate the safety and efficacy of the Delcath system in administering the chemotherapy agent doxorubicin to treat malignant melanoma that spreads to the liver and to fund our Phase I clinical trials and commence Phase II clinical trials to demonstrate the safety and efficiency of using the Delcath system to deliver the chemotherapy agent melphalan to treat cancerous tumors in the liver.

### Corporate Information

Our executive offices are located at 1100 Summer Street, Stamford, Connecticut 06905. Our telephone number at this location is (203) 323-8668.

THE OFFERING

Securities offered	units, each unit consisting of five shares of common stock and five 2003 Warrants each to purchase one share of our common stock.
Common stock to be outstanding after this offering	shares.
Warrants and options to be outstanding after this offering	[ ] Warrants (including the 2000 Warrants and the 2003 Warrants) and options to purchase [ ] shares of our common stock.
Term of the 2003 Warrants	Five years from the closing of this offering.
Exercise price of the 2003 Warrants	\$
Expiration date of the 2003 Warrants	, 2008.
Redemption	Commencing one year from the closing date of this offering, our 2003 Warrants may be redeemed at our option at a redemption price of \$0.01 per warrant provided (i) the average closing price of our common stock for the twenty trading days prior to the date of notice of redemption is at least 200% of the initial unit offering price and (ii) there is then an effective registration statement providing for the issuance of the underlying shares of common stock.
Nasdaq Small Cap Market symbols	"DCTH" for our common stock and " " for our 2003 Warrants.
Boston Stock Exchange symbols	"DCT" for our common stock and " " for our 2003 Warrants.

SUMMARY FINANCIAL DATA

The following summary financial data for the two years ended December 31, 2002 and cumulative from inception through December 31, 2002 are derived from our audited financial statements.

The data should be read in conjunction with the consolidated financial statements, related notes and other financial information, "Capitalization" and "Plan of Operation" appearing elsewhere in this prospectus.

	Years Ended December 31,		Cumulative from Inception (August 5, 1988) to December 31,
	2001	2002	2002
	----	----	----
(in thousands except per share amounts)			
Statement of Operations Data:			
Total costs and expenses .....	\$ 2,069	\$ 1,897	\$16,714
Operating loss .....	(2,069)	(1,897)	(16,714)
Net loss attributable to common stockholders .....	(1,876)	(1,807)	
Net loss per share .....		(0.48)	(0.44)
Weighted average number of shares of common stock outstanding .....	3,904	4,085	

As of December 31, 2002

	(in thousands)	As Adjusted(1)
Balance Sheet Data:		
Cash and cash equivalents .....	\$1,064	\$3,344
Certificate of deposit .....	370	370
Total assets .....	1,812	4,092
Total liabilities .....	175	175
Stockholders' equity .....	1,637	3,917

(1) The as adjusted amounts assume net proceeds of \$2,280,000 (excluding proceeds from any exercise of the overallotment option) from the sale of the units offered hereby.



## RISK FACTORS

You should consider carefully the following factors, as well as the other information set forth in this prospectus, prior to making an investment in the units. If any of the following risks and uncertainties actually occur, our business, financial condition or operating results may be materially and adversely affected. In this event, the trading price of our common stock or the 2003 Warrants, as applicable, may decline and you may lose part or all of your investment.

### RISKS RELATED TO OUR BUSINESS AND FINANCIAL CONDITION

The following factors relate to risks that are material to our business and financial condition. If any of the possible events we describe below turns out to be the case, our business may be adversely affected and we may be forced to cease or curtail our operations which may result in the loss of your entire investment.

Our entire focus has been the development and commercialization of the Delcath system.

The Delcath system, an enabling technology for the isolation of various organs in the body to permit the delivery of otherwise unacceptably toxic doses of drugs, is our only product. If the Delcath system fails as a commercial product, we have no other products to sell.

Continuing losses may exhaust our capital resources.

We expect to incur significant and increasing losses while generating minimal revenues over the next few years. From our inception on August 5, 1988 through December 31, 2002, we have incurred cumulative losses of \$16 million which were principally incurred in connection with our product development efforts. For the years ended December 31, 2001 and December 31, 2002, we incurred net losses of \$1.9 million and \$1.8 million, respectively. If we continue to incur losses we may exhaust our capital resources, including those raised in this offering. As of December 31, 2002, we had cash and cash equivalents and short term investments of \$1.43 million.

The proceeds of this offering may not be sufficient to complete our planned clinical trials and our efforts to raise additional financing may be unsuccessful.

The proceeds of this offering may not be sufficient to enable us to complete our Phase III clinical trials and obtain FDA pre-marketing approval for the use of doxorubicin with our Delcath system because of unanticipated delays or expenses, increased regulatory requirements by the FDA or other factors which we cannot foresee or control. If we do not obtain any financing that we may require, we will not be able to complete Phase III clinical trials or obtain FDA pre-marketing approval for the use of doxorubicin with the Delcath system. Our ability to complete the Phase III clinical trials could be lessened to the extent we devote assets to clinical trials using melphalan with the Delcath system.

If we do not raise any additional capital required to commercialize the Delcath system, our potential to generate future revenues will be significantly limited even if we receive FDA pre-marketing approval.

The proceeds of this offering may not be sufficient to complete Phase III clinical trials using doxorubicin and will be insufficient to fund the costs of commercializing the Delcath system which will be significant. We have no commitments for any additional financing. If we are unable to obtain additional financing as needed, we will not be able to sell the system commercially.

### RISKS RELATED TO FDA AND FOREIGN REGULATORY APPROVAL

The following factors relate to risks that are material to obtaining FDA and foreign regulatory approval. If any of the events we describe below turns out to be the case, our business may be adversely affected and we may be forced to cease or curtail our operations which may result in the loss of your entire investment.

If the FDA refuses to grant pre-marketing approval or limits the circumstances under which the Delcath system may be used, our ability to market the Delcath system will be greatly reduced.

Pre-marketing approval requires a determination by the FDA that the data developed by our clinical trials show that the use of doxorubicin in our system is safe and effective in the treatment of primary liver cancer and melanoma

which has spread to the liver. The FDA requires that we demonstrate, for each of primary liver cancer and metastatic melanoma, in a statistically rigorous manner, increased patient survival times before it will approve our pre-market application. Even if regulatory approval is granted, the approval may limit the uses for which the Delcath system may be marketed. If we fail to obtain FDA pre-marketing approval, we will not be able to market the Delcath system. Additionally, if we obtain FDA pre-marketing approval with substantial limitations on uses of the Delcath system, this would greatly reduce the market for the system.

If we do not obtain FDA pre-marketing approval, we may not be able to export the Delcath system to foreign markets, which will limit our sales opportunities.

If the FDA does not approve our pre-marketing application for the Delcath system, we will not be able to export the Delcath system from the United States unless approval has been obtained from one of a number of developed nations. We have not begun to seek foreign regulatory approval and may not be able to obtain approval from one or more countries where we would like to sell the Delcath system. If we are unable to market the Delcath system internationally because we are not able to obtain required approvals, our international market opportunity will be materially limited.

Because of our limited experience, conduct of Phase III clinical trials and obtaining FDA pre-marketing approval could be delayed.

We have and may continue to experience delays in beginning, conducting and completing the trials, caused by many factors, including our lack of experience in arranging for clinical trials and in evaluating and submitting the data gathered from clinical trials, in designing trials to conform to the trial protocols authorized by the FDA, in complying with the requirements of institutional review boards at the sites where the trials will be conducted and in identifying clinical test sites and sponsoring physicians. Completion of our clinical trials will also depend on the ability of the clinical test sites to identify patients to enroll in the clinical trials. The trials may also take longer to complete because of difficulties we may encounter in entering into agreements with clinical testing sites to conduct the trials. Any significant delay in completing clinical trials or in the FDA's responding to our submission or a requirement by the FDA for us to conduct additional trials would delay the commercialization of the Delcath system and our ability to generate revenues.

Third-party reimbursement may not be available to purchasers of the Delcath system or may be inadequate.

Physicians, hospitals and other health care providers may be reluctant to purchase our products if they do not receive substantial reimbursement for the cost of the procedures using our products from third-party payors, including Medicare, Medicaid and private health insurance plans.

Because the Delcath system currently is characterized by the FDA as an experimental device, Medicare, Medicaid and private health insurance plans will not reimburse its use in the United States. We will not begin to seek to have third-party payors reimburse the cost of the Delcath system until after its use is approved by the FDA. Each third-party payor independently determines whether and to what extent it will reimburse for a medical procedure or product. Third-party payors in the United States or abroad may decide not to cover procedures using the Delcath system. Further, third-party payors may deny reimbursement if they determine that the Delcath system is not used in accordance with established payor protocols regarding cost effective treatment methods or is used for forms of cancer or with drugs not specifically approved by the FDA.

New products are under increased scrutiny as to whether or not they will be covered by the various healthcare plans and the level of reimbursement which will be applicable to respective covered products and procedures. A third-party payor may deny reimbursement for the treatment and medical costs associated with the Delcath system, notwithstanding FDA or other regulatory approval, if that payor determines that the Delcath system is unnecessary, inappropriate, not cost effective, experimental or is used for a non-approved indication.

#### RISKS RELATED TO MANUFACTURING, COMMERCIALIZATION AND MARKET ACCEPTANCE OF THE DELCATH SYSTEM

We obtain necessary components for the Delcath system from sole-source suppliers. Because manufacturers must demonstrate compliance with FDA specifications, if we change any supplier, the successful completion of the clinical trials and/or the commercialization of the Delcath system could be jeopardized if the new supplier cannot demonstrate such compliance.

We must ensure that the components of the Delcath system are manufactured in accordance with manufacturing and performance specifications of the Delcath system on file with the FDA. Many of the components of the Delcath

system are manufactured by sole source suppliers. If any of our suppliers fails to meet our needs, or if we need to seek an alternate source of supply, we may be forced to suspend or terminate our clinical trials. Further, if we need a new source of supply after commercial introduction of the Delcath system, we may face long interruptions in obtaining necessary components, which could jeopardize our ability to supply the Delcath system to the market.

We do not have any contracts with suppliers for the manufacture of components for the Delcath system. If we are unable to obtain an adequate supply of the necessary components, we may not be able timely to complete our clinical trials.

We do not have any contracts with suppliers for the manufacture of components for the Delcath system. Certain components are available from only a limited number of sources. To date, we have only had components of the Delcath system manufactured for us in small quantities for use in pre-clinical studies and clinical trials. We will require significantly greater quantities to commercialize the product. If we are unable to obtain adequate supplies of components from our existing suppliers or need to switch to an alternate supplier, commercialization of the Delcath system could be delayed.

Because of our limited experience in marketing products and our lack of adequate personnel to market and sell products, we may not be successful in marketing and selling the Delcath system even if it receives FDA pre-marketing approval.

We have not previously sold, marketed or distributed any products and currently do not have the personnel, resources, experience or other capabilities to market the Delcath system adequately. Our success will depend upon our ability to attract and retain skilled sales and marketing personnel. Competition for sales and marketing personnel is intense, and we may not be successful in attracting or retaining such personnel. Our inability to attract and retain skilled sales and marketing personnel could adversely affect our business, financial condition and results of operations.

Market acceptance of the Delcath system will depend on substantial efforts and expenditures in an area with which we have limited experience.

Market acceptance of the Delcath system will depend upon a variety of factors including whether our clinical trials demonstrate a significant reduction in the mortality rate for the kinds of cancers treated on a cost-effective basis, our ability to educate physicians on the use of the Delcath system and our ability to convince healthcare payors that use of the Delcath system results in reduced treatment costs to patients. We only have limited experience in these areas and we may not be successful in achieving these goals. Moreover, the Delcath system replaces treatment methods in which many hospitals have made a significant investment. Hospitals may be unwilling to replace their existing technology in light of their investment and experience with competing technologies. Many doctors and hospitals are reluctant to use a new medical technology until its value has been demonstrated. As a result, the Delcath system may not gain significant market acceptance among physicians, hospitals, patients and healthcare payors.

#### RISKS RELATED TO PATENTS, TRADE SECRETS AND PROPRIETARY RIGHTS

Our success depends in large part on our ability to obtain patents, maintain trade secret protection and operate without infringing on the proprietary rights of third parties.

Because of the length of time and expense associated with bringing new medical devices to the market, the healthcare industry has traditionally placed considerable emphasis on patent and trade secret protection for significant new technologies. Litigation may be necessary to enforce any patents issued or assigned to us or to determine the scope and validity of third-party proprietary rights. Litigation could be costly and could divert our attention from our business. If others file patent applications with respect to inventions for which we already have patents issued to us or have patent applications pending, we may be forced to participate in interference proceedings declared by the United States Patent and Trademark Office to determine priority of invention, which could also be costly and could divert our attention from our business. If a third party violates our intellectual property rights, we may be unable to enforce our rights because of our limited resources. Use of our limited funds to defend our intellectual property rights may also affect our financial condition adversely.

## Risks related to products liability

We do not currently carry products liability insurance and we may not be able to acquire sufficient coverage in the future to cover large claims.

Clinical trials, manufacturing and product sales may expose us to liability claims from the use of the Delcath system. Though participants in clinical trials are generally required to execute consents and waivers of liability, they may still be able to assert products liability claims against us. Claims for damages, whether or not successful, could cause delays in the clinical trials and result in the loss of physician endorsement. We do not currently carry products liability insurance and we may not be able to acquire products liability insurance at sufficient coverage levels or at an acceptable cost. A successful products liability claim or recall would have a material adverse effect on our business, financial condition and results of operations.

## Risks related to an investment in our common stock and this offering

The following factors relate to risks that are material to an investment in our common stock. Any of these factors could result in lowering the market value of our common stock and our 2003 Warrants.

There is a limited public float of our common stock and, at this time, no public market for our 2003 Warrants. Because of this, trades of relatively small amounts of our common stock can have a disproportionate effect on the market price for our common stock. The market price of our common stock may be volatile.

Of our outstanding common stock, approximately two-thirds can be considered to be in the public float. The term "public float" refers to shares freely and actively tradeable on the Nasdaq Small Cap Market and/or the Boston Stock Exchange and not owned by officers, directors or affiliates, as such term is defined under the Securities Act. Because of the relatively small public float and the limited trading volume of our common stock, purchases and sales of relatively small amounts of our common stock can have a disproportionate effect on the market price for our common stock. As a result, the market price of our common stock can be volatile.

The number of shares eligible for future sale may cause the market price of our common stock to be below the level it otherwise would.

The potential for sales of substantial amounts of our common stock, or "equity overhang," could adversely affect the market price of our common stock. Upon completion of this offering, \_\_\_\_\_ shares of our common stock will be outstanding. Of these shares, \_\_\_\_\_ shares sold in this offering or sold in our public offering in 2000 will be freely tradable without restriction or further registration under the Securities Act, except for shares held or purchased by persons considered to be our "affiliates" or acting as "underwriters," as those terms are defined under the Securities Act. The remaining \_\_\_\_\_ shares of our common stock outstanding and held by existing stockholders will be considered "restricted securities" under the Securities Act and eligible for sale in compliance with Rule 144. Rule 144 provides volume and manner of sale restrictions and holding periods, which expire after the holder of our common stock ceases to meet the definitions of affiliate or underwriter.

In addition, we may issue substantial amounts of common stock upon exercise of the 2000 Warrants, the 2003 Warrants or options outstanding under our stock option plans.

Sales of substantial amounts of common stock following this offering, or the perception that such sales could occur, could have an adverse effect on prevailing market prices for our common stock and the 2003 Warrants.

Anti-takeover provisions in our certificate of incorporation and by-laws and under Delaware law and our stockholders rights agreement may reduce the likelihood of a potential change of control.

Provisions of our certificate of incorporation, by-laws and Delaware law may have the effect of discouraging, delaying or preventing a change in control of us or unsolicited acquisition proposals that a stockholder might consider favorable. These include provisions:

- o providing for a classified board and permitting the removal of a director only for cause;

- o authorizing the board of directors to fill vacant directorships or increase the size of our board of directors; and
- o subjecting us to the provisions of Section 203 of the Delaware General Corporate Law, which provides that a Delaware corporation may not engage in any of a broad range of business combinations with a person or entity who owns 15% or more of the outstanding voting stock of a company for a period of three years from the date the person or entity became an interested stockholder unless (a) prior to such time our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder or (b) upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced or (c) at or subsequent to such time the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3% of the outstanding voting stock not owned by the interested stockholder.

Furthermore, our board of directors has the authority to issue shares of preferred stock in one or more series and to fix the rights and preferences of the shares of any such series without stockholder approval. Any series of preferred stock is likely to be senior to the common stock with respect to dividends, liquidation rights and, possibly, voting rights. Our board's ability to issue preferred stock may have the effect of discouraging unsolicited acquisition proposals, thus adversely affecting the market price of our common stock and the 2003 Warrants.

We also have a stockholders rights agreement which could have the effect of substantially increasing the cost of acquiring us unless our board of directors supports the transaction even if the holders of a majority of our common stock are in favor of the transaction.

Roan/Meyers Associates, L.P. has limited public offering experience which could affect the price of our common stock after this offering.

We have been advised by Roan/Meyers Associates, L.P., the representative of the underwriters, that it has not acted as lead underwriter in any firm commitment public offering in the last three years. This limited public offering experience could affect the subsequent development of a trading market of our common stock and the 2003 Warrants. You should consider this lack of public offering experience in deciding whether to buy our securities in this offering. To obtain detailed information regarding Roan/Meyers Associates, L.P. (or any underwriter), you should contact your state regulator or visit the website of the National Association of Securities Dealers, Inc. at "www.nasdr.com."

Our stockholders' equity is less than the amount prescribed for continued listing on the Nasdaq Small Cap Market. If we do not regain compliance with the continued listing standards, our stock may be delisted and we may not receive listing approval for the 2003 Warrants.

As of December 31, 2002, we no longer meet the minimum stockholders' equity requirement prescribed for continued listing on the Nasdaq Small Cap Market. In order to regain compliance, our stockholders' equity must be at least \$2.5 million.

In order to receive approval to list the 2003 Warrants on the Nasdaq Small Cap Market, we are required to be in compliance with the continued listing standards for the Nasdaq Small Cap Market with respect to our common stock. We are also required to maintain: (i) a minimum bid price of \$1.00 per share, (ii) a certain public float, (iii) a certain number of round lot shareholders and (iv) one of the following: a net income from continuing operations (in latest fiscal year or two of the three last fiscal years) of at least

\$500,000, a market value of listed securities of at least \$35 million or a stockholders' equity of at least \$2.5 million. We currently are in compliance with the minimum bid price, public float and number of round lot holders requirements. Because we are a development stage company, we do not meet the net income requirement. We also do not meet market value of listed securities requirement. In the event we are unable to obtain approval for listing on the Nasdaq Small Cap Market, we will likely have to apply for listing on the Nasdaq Over the Counter Bulletin Board or the Nasdaq Bulletin Board Exchange in order to maintain a public market for the trading of our common stock and the 2003 Warrants. In the event that the Nasdaq Small Cap Market does not allow the listing of the 2003 Warrants or determines to delist our common stock, the underwriters may not proceed with the offering.

Our exercise of our right to redeem the 2003 Warrants will prevent the holders from realizing any additional benefit from the increase in the price of our common stock.

Commencing one year from the closing date of this offering, we may redeem the 2003 Warrants at a redemption price of \$0.01 per warrant provided (i) the average closing price of our common stock for the twenty trading days prior to the date of notice of redemption is at least 200% of the initial unit offering price and (ii) there is an effective registration statement providing for the issuance of the underlying shares of common stock. Notice of our election to redeem the 2003 Warrants would force holders, in order to avoid accepting the redemption price of \$0.01 per warrant, either to exercise the warrants by paying the exercise price or sell the warrants in the market. A holder of the 2003 Warrants would be forced to choose between these two actions at a time when they might otherwise wish to continue to hold the warrants.

A current prospectus and state blue sky registration may be required to exercise the 2003 Warrants.

A holder of the 2003 Warrants will be able to exercise the warrants only if the shares of our common stock issuable upon the exercise of the warrants are registered for sale under the Securities Act of 1933 and a current prospectus is available for delivery. In addition, the shares of common stock issuable upon the exercise of the 2003 Warrants must, if required, be registered or otherwise qualified for sale under the securities laws of the state in which the holder of the warrants resides.

#### SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus, including statements of our expectations, intentions, plans, objectives and beliefs, including those contained in or implied by our "Plan of Operation," are "forward-looking statements," within the meaning of Section 21E of the Securities Exchange Act of 1934, that are subject to certain events, risks and uncertainties that may be outside our control. These forward-looking statements may be identified by the use of words such as "expects," "anticipates," "intends," "plans" and similar expressions. They include statements of our future plans and objectives for our future operations and statements of future economic performance, information regarding our expected growth, our capital budget and future capital requirements, the availability of funds and our ability to meet future capital needs, the realization of our deferred tax assets and the assumptions described in this prospectus underlying such forward-looking statements. Actual results and developments could differ materially from those expressed in or implied by such statements due to a number of factors, including those described in the context of such forward-looking statements, our ability to achieve operating efficiencies, industry pricing and technology trends, evolving industry standards, domestic and international regulatory matters, general economic and business conditions, the strength and financial resources of our competitors, our ability to find and retain skilled personnel, the political and economic climate in which we conduct operations, the risks discussed in "Risk Factors" and other risk factors described from time to time in our other documents and reports filed with the Securities and Exchange Commission. We do not assume any responsibility to update any of our forward-looking statements regardless of whether factors change as a result of new information, future events or for any other reason.

#### USE OF PROCEEDS

Our net proceeds from the sale of units being offered by this prospectus, after deducting the underwriting discount and estimated expenses of this offering, are estimated to be \$2,280,000.

We expect to use these net proceeds approximately as follows:

Application of Net Proceeds -----	Approximate Dollar Amount -----	Approximate Percentage of Net Proceeds -----
Research and development:		
Phase III clinical trials using the Delcath .. system with doxorubicin	\$1,486,000	65.2%
Phase I and Phase II clinical trials using the Delcath system with melphalan	291,000	12.8%
Develop alternative filter for the Delcath system	183,000	8.0%
Working capital and general corporate purposes ..	320,000	14.0%
	-----	----
Total .....	\$2,280,000	100 %
	=====	=====

Phase III clinical trials using the Delcath system with doxorubicin. These costs represent:

- o the costs of recruiting medical centers to conduct the trials and patients to participate in the trials;
- o the costs of treating patients, including the costs of the Delcath system and payments for unreimbursed medical expenses for patients receiving treatment with the system;
- o fees and expenses of the clinical research organization and the statistical evaluation organization which we anticipate hiring to conduct the trials, collect and process the data and prepare and file a pre-market approval application; and
- o the compensation and benefits of Delcath employees responsible for overseeing the completion of the clinical trials and filing a pre-marketing application.

Phase I and Phase II clinical trials using the Delcath system with melphalan. These costs represent:

- o fees payable to the National Cancer Institute for the costs of treating patients, including the costs of the Delcath system;
- o fees and expenses of the clinical research organization and the statistical evaluation organization we anticipate hiring to monitor the trials, collect and process the data and prepare and file the required FDA reports in order to receive approval to proceed with the next phase of the clinical trials; and
- o the compensation and benefits of Delcath employees responsible for overseeing the completion of each phase of the clinical trials and filing the required FDA report in order to receive approval to proceed with the next phase of the trials.

Develop alternative filter for use in the Delcath system. These costs represent:

- o the fees and expenses of a consultant to identify sources capable of supplying an activated carbon blood filter, including the design and production of a prototype filter; and
- o the fees of consultants to test the capability of the filter to cleanse the blood supply of most of the infused chemotherapy agent and to prepare reports of results to be submitted to the FDA to obtain approval to use the new filter with the Delcath System.

Working capital and general corporate purposes. These costs include general and administrative costs, including the salaries of our executive officers.

If the underwriters exercise the over-allotment option in full, we will realize additional net proceeds of \$391,500, which we expect we will use for working capital purposes.

The above allocation represents our best estimate of the allocation of the net proceeds of this offering based upon the current status of our business. If any of these factors change, we may find it necessary to reallocate a portion of the proceeds from one category to another or use portions of the proceeds for other purposes. Our estimates may prove to be inaccurate, new programs or activities may be undertaken which will require additional expenditures or unforeseen expenses may occur.

Based upon our current plans and assumptions relating to our business plan, we anticipate that the net proceeds of this offering will satisfy our working capital requirements for at least eighteen to twenty four months following the closing of this offering. If our plans change or our assumptions prove to be inaccurate, we may need to seek additional financing sooner than currently anticipated or curtail our operations. The proceeds of this offering may not be sufficient to fund our clinical trials with respect to the use of the Delcath system with doxorubicin to treat liver cancer. If we need additional financing, it may not be available or may be available only on terms that are not favorable to us.

We will invest proceeds not immediately required for the purposes described above principally in United States government securities, short-term certificates of deposit, money market funds or other short-term interest-bearing investments.

MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Units consisting of our common stock and our 2000 Warrants traded on the Nasdaq Small Cap Market under the symbol "DCTHU" from October 9, 2000, the effective date of the registration statement under the Securities Act relating to our initial public offering of our common stock, until October 19, 2001. In accordance with the terms of our initial public offering, effective October 22, 2001, our common stock and our 2000 Warrants were decoupled from the units issued October 19, 2000 and commenced separate trading. The shares of common stock currently trade under the symbol "DCTH" and the 2000 Warrants currently trade under the symbol "DCTHW." The following table sets forth the per share range of high and low sales prices of the units and the common stock for the periods indicated as reported on the Nasdaq Small Cap Market:

Unit Price Range  
-----

	2001 ----	
	High ----	Low ----
Quarter ended March 31, 2001	\$5.69	\$2.19
Quarter ended June 30, 2001	3.20	1.25
Quarter ended September 30, 2001	2.92	1.26
October 1, 2001 - October 19, 2001	1.35	1.00

Common Stock Price Range  
-----

	2001 ----	
	High ----	Low ----
Quarter ended December 31, 2001 (since October 19 only)	\$1.795	\$0.56

2002  
----

	High ----	Low ----
--	--------------	-------------



Quarter ended March 31, 2002	\$2.90	\$0.94
Quarter ended June 30, 2002	1.90	0.68
Quarter ended September 30, 2002	1.11	0.63
Quarter ended December 31, 2002	2.66	0.31

2002

	High	Low
	----	---
Quarter ending March 31, 2003 (through February 28, 2003)	\$1.79	\$0.94

Our common stock and our 2000 Warrants are also listed on the Boston Stock Exchange under the symbols "DCT" and "DCT/U," respectively.

As of February 28, 2003, there were approximately 81 stockholders of record of our common stock and approximately 686 additional beneficial owners of our common stock.

USE OF PROCEEDS OF INITIAL PUBLIC OFFERING

As noted above, the effective date of our registration statement relating to our initial public offering of our common stock was October 19, 2000. A total of 1,200,000 units were sold for \$6.00 per unit consisting of one share of common stock and one redeemable warrant to purchase one share of common stock for \$6.60 per share until October 18, 2005. The initial public offering resulted in gross proceeds of \$7.2 million, \$720,000 of which was paid as the underwriting discount. Cash expenses relating to the offering, including non-accountable expense reimbursement to the underwriters, totaled approximately \$1.45 million. Our net proceeds were approximately \$5.4 million. From the time of receipt through December 31, 2002, the net proceeds were applied toward:

Application of Net Proceeds -----	Approximate Amount ----- (in thousands) -----
Research and development:	
Phase III clinical trials using the Delcath system with doxorubicin .....	\$2,009
Phase I clinical trials using the Delcath system with melphalan .....	901
Research and development stage clinical trials for other chemotherapy agents	87
Repayment of indebtedness .....	270
Working capital and general corporate purposes .....	671
	-----
Total .....	\$3,938 =====

DIVIDEND POLICY

We have never paid cash dividends on our common stock and anticipate that we will continue to retain our earnings, if any, to finance the growth of our business. Our board of directors has the sole discretion in determining whether to declare and pay dividends in the future. Whether we pay cash dividends on our common stock will depend on our profitability, financial condition, cash requirements, future prospects and other factors deemed relevant by our board of directors. Our ability to pay cash dividends in the future could be limited or prohibited by the terms of financing agreements that we may enter into or by the terms of any preferred stock that we may authorize and issue.

CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2002 and as adjusted for the effect of this offering including the application of the net proceeds.

December 31, 2002

-----	-----
Actual	As Adjusted (in thousands)

Common Stock .....	\$ 41	\$ 65
Additional paid-in capital .....	19,049	21,305
Accumulated deficit .....	(17,453)	(17,453)
Total stockholders' equity ....	1,637	3,917
	-----	-----
Total capitalization .....	\$ 1,637	\$ 3,917
	=====	=====

SELECTED FINANCIAL DATA

The following selected financial data for the two years ended December 31, 2002 and cumulative from inception through December 31, 2002 are derived from our audited financial statements.

The data should be read in conjunction with the consolidated financial statements, related notes and other financial information, "Capitalization" and "Plan of Operation" appearing elsewhere in this prospectus.

Years Ended		Cumulative from
December 31,		Inception (August 5,
2001	2002	1988)
----	----	to December 31,
		2002
		----

(in thousands except per share amounts)

Statement of Operations Data:

Total costs and expenses .....	\$ 2,069	\$ 1,897	\$ 16,714
Operating loss .....	(2,069)	(1,897)	(16,714)
Net loss attributable to common			
stockholders .....	(1,876)	(1,807)	
Net loss per share .....		(0.48)	(0.44)
Weighted average number of shares of	3,904	4,085	

common stock outstanding

As of December 31, 2002

-----  
As Adjusted1  
(in thousands)

Balance Sheet Data:

Cash and cash equivalents	\$1,064	\$3,344
Certificate of deposit	370	370
Total assets	1,812	4,092
Total liabilities	175	175
Stockholders' equity	1,637	3,917

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(1) The as adjusted amounts assume net proceeds of \$2,280,000 (excluding proceeds for any exercise of the overallotment option) from the sale of the units offered hereby.

The above tables do not reflect (i) up to units issuable in connection with the underwriters' overallotment option, (ii) up to shares of common stock reserved for issuance upon exercise of stock options issued pursuant to our stock option plans and (iii) up to shares of common stock issuable upon exercise of warrants (including warrants we plan to issue in connection with this offering).

#### PLAN OF OPERATION

Since our founding in 1988, we have been a development stage company engaged primarily in developing and testing the Delcath system for the treatment of liver cancer. A substantial portion of our historical expenses have been for the development of our medical device, the clinical trials of our product and the pursuit of patents worldwide, which now total ten. We expect to continue to incur significant losses from costs for product development, clinical studies, securing patents, regulatory activities, manufacturing and establishing a sales and marketing organization without any significant revenues. A detailed description of the cash used to fund historical operations is in the financial statements and the notes thereto. Without an FDA-approved product and commercial sales, we will continue to be dependent upon existing cash and the sale of equity or debt to fund future activities. While the amount of future net losses and time required to reach profitability are uncertain, our ability to generate significant revenue and become profitable will depend on our success in commercializing our device.

During 2001, we initiated the clinical trial of the system for isolated liver perfusion using the chemotherapy agent, melphalan. The Phase I clinical trial at the National Cancer Institute marks an expansion in the potential labeled usage for the Delcath system beyond doxorubicin, the chemotherapy agent used in our initial clinical trials. Enrollment of new patients in the Phase I trial continued throughout 2002.

NCI is currently preparing a clinical trial protocol for a Phase II trial of melphalan, based on the data collected in the Phase I study. Enrollment in this Phase II study is expected to begin during 2003. The Principal Investigator at the NCI has informed us that he plans to publish and/or present his findings in appropriate medical forums once treatment within Phase I of the trial is completed.

We also announced that the Sydney Melanoma Unit of the University of Sydney Sydney Cancer Centre plans to proceed with a Phase III study of our drug delivery system for inoperable cancer in the liver, pending approval of the hospital's Institutional Ethics Committee. Other potential sites are not as far along as Sydney in their preparations to participate in this clinical trial.

Our management continues to speak to potential investors and investment analysts at a series of meetings in several major U. S. cities and in Europe. On April 3, 2002 we raised \$267,500 upon completion of a private placement of 243,181 shares of common stock with an investment group.

Over the next twelve months, we expect to incur substantial expenses related to the research and development of our technology, including Phase III clinical trials using doxorubicin with the Delcath system and Phase I and Phase II clinical trials using melphalan with the Delcath system. Additional funds, when available, will be committed to pre-clinical and clinical trials for the use of other chemotherapy agents with the Delcath system for the treatment of liver cancer and the development of additional products and components. We will also continue efforts to qualify additional sources of the key components of our device, in an effort to further reduce manufacturing costs and minimize dependency on a single source of supply.

## LIQUIDITY AND CAPITAL RESOURCES

Without raising additional funds, we currently anticipate that our available funds will be sufficient to meet our anticipated needs for working capital and capital expenditures through at least the next twelve months. We are not projecting any capital expenditures that will significantly affect our liquidity during the next twelve months. Upon the closing of this offering, we anticipate hiring an additional employee to serve as Director of Research and Development. Our cash and cash equivalents and short term investments at December 31, 2002 totaled \$1.43 million.

Our future liquidity and capital requirements will depend on numerous factors, including the progress of our research and product development programs, the success or failure of our clinical studies, the timing and costs of making various United States and foreign regulatory filings, obtaining approvals and complying with regulations, the timing and effectiveness of product commercialization activities, including marketing arrangements overseas, the timing and costs involved in preparing, filing, prosecuting, defending and enforcing intellectual property rights and the effect of competing technological and market developments.

Our future results are subject to substantial risks and uncertainties. We expect to require additional working capital in the future and there can be no assurance that such working capital will be available on acceptable terms, if at all.

### FUTURE CAPITAL NEEDS, ADDITIONAL FUTURE FUNDING

Our future results are subject to substantial risks and uncertainties. We have operated at a loss for our entire history and we may never achieve consistent profitability. We had working capital at December 31, 2002 of \$1.4 million. We expect to require additional working capital in the future, and such working capital may not be available on acceptable terms, if at all. In addition, we may need additional capital in the future to fully implement our strategy as set forth herein.

### APPLICATION OF CRITICAL ACCOUNTING POLICIES

Our financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. Certain accounting policies have a significant impact on amounts reported in the financial statements. A summary of those significant accounting policies can be found in Note 1 to our financial statements included herein. We have not adopted any significant new accounting policies during the year ended December 31, 2002, but have reclassified our Statements of Operations to reflect cost and expense accounts on a functional basis for 2002 and prior.

## BUSINESS

### GENERAL

We were incorporated under Delaware law in 1988. We are a development stage company, and we have developed the Delcath system to isolate the liver from the general circulatory system and to administer chemotherapy and other therapeutic agents directly to the liver. Since our inception, we have raised approximately \$14 million in funds (net of fundraising expenses), and we have invested approximately \$11 million of those funds in research and development costs associated with development and testing of the Delcath system.

The Delcath system is not currently approved for marketing by the United States Food and Drug Administration, and it cannot be marketed in the United States without FDA pre-marketing approval. We plan to conduct Phase III clinical trials designed to secure marketing approval in the United States and possibly in foreign markets for use of the Delcath system with a particular chemotherapy agent, doxorubicin, currently used to treat malignant melanoma that has spread to the liver. We also plan to continue our clinical trial for the use of the Delcath system with another chemotherapy agent, melphalan, which is also currently used to treat malignant melanoma that has spread to the liver. Additionally, we plan to continue pre-clinical and clinical trials on the use of the Delcath system with other chemotherapy agents used to treat liver cancer.

#### STRATEGY

Our objectives are to establish the use of the Delcath system as the standard technique for delivering chemotherapy agents to the liver and to expand the Delcath technology so that it may be used in the treatment of other liver diseases and of cancers in other parts of the body. Our strategy includes the following:

- o Completing clinical trials to obtain FDA pre-marketing approval for use of the Delcath system with doxorubicin to treat malignant melanoma that has spread to the liver. Our highest priority is completing the Phase III clinical trials, data preparation, statistical analysis and regulatory documents associated with an application for pre-market approval of commercial sale of the Delcath system in the United States for use in administering doxorubicin in the treatment of melanoma that has spread to the liver.
- o Obtaining approval to market the Delcath system in the United States for the treatment of other forms of liver cancer using other chemotherapy agents and treatment of hepatitis using anti-viral drugs. In August 2001, we commenced a Phase I clinical trial at the National Cancer Institute using melphalan, a chemotherapy agent. In addition to researching the use of other chemotherapy agents with the Delcath system to treat cancer, we plan to research the use of other compounds with the Delcath system to treat other diseases, such as hepatitis. Our timing to begin these studies will depend on our ability to establish strategic alliances with pharmaceutical manufacturers or other strategic partners in conjunction with our research into other therapeutic compounds and to raise additional funds for these purposes. Additional FDA pre-marketing approval will be required to market the Delcath system for these uses.
- o Introducing the Delcath system into foreign markets. We will seek to establish strategic relationships with domestic and foreign firms that have a recognized presence or experience in foreign markets that we intend to target. Our strategy is to focus on markets that have a high incidence of liver cancer and the means to provide and pay for cancer treatments. According to the World Health Organization, many Asian and European countries, including China, Japan, Greece, Hong Kong, the Philippines, France, Germany, Italy and Spain, have a higher incidence of liver cancer than the United States. Additionally, Australia has been cited as having the highest incidence of skin cancer in the world. Given that our current Phase III clinical trials are with a chemotherapy agent that is used to treat malignant melanoma that has spread to the liver, upon obtaining FDA pre-marketing approval, we intend to target the Australian market. We also intend to seek to enter into arrangements with strategic partners who have experience with obtaining regulatory approval and marketing medical devices in those markets and are willing to bear the cost of those activities.

#### THE CANCER TREATMENT MARKET

The American Cancer Society projects that about 1,334,100 Americans will be diagnosed with cancer in 2003. According to the American Cancer Society's "Cancer Facts and Figures 2003," cancer remains the second leading cause of death in the United States. While researchers continue to develop innovative new treatments for some forms of this disease, surgical resection, chemotherapy, radiation and hormone therapy continue to be the most commonly used treatments.

The financial burden of cancer is great for patients, their families and society. The National Institutes of Health, in the American Cancer Society's "Cancer Facts & Figures 2003," estimates the overall costs of cancer in the year 2002 to be \$171.6 billion, including \$61 billion in direct medical costs, \$15.5 billion for indirect morbidity costs attributable to lost productivity due to illness and \$95.2 billion for indirect mortality costs attributable to lost productivity due to death.

#### THE LIVER CANCER MARKET

Liver cancer is one of the most prevalent and lethal forms of cancer throughout the world. There are two forms of liver cancer: primary and metastatic. Primary liver cancer originates in the liver. Metastatic, or secondary, liver cancer results from the spread of cancer from other places in the body to the liver. With our initial Phase III clinical trials, we will seek to develop data on metastatic melanoma which has spread to the liver. According to the American Cancer Society's "Cancer Facts & Figures 2003," the five-year survival rate for liver cancer patients, both primary and secondary, is approximately 7%, compared to the 62% for all other forms of cancer combined. In the liver, tumors can be surgically removed only when they are located in one of the liver's two lobes. However, since symptoms of liver cancer often do not appear until the disease has advanced, more than 70% of cancerous liver tumors cannot be surgically removed at the time of diagnosis. A significant number of patients treated for primary and metastatic liver cancer will also experience a recurrence of their disease.

Metastatic liver cancer is characterized by microscopic pieces of other forms of cancer that detach from the primary site and travel via the blood stream and lymphatic system into the liver, where they grow into new tumors. This growth often continues even after removal of the primary cancer or cancerous organ. When cancer cells enter the liver and develop into tumors, they tend to grow very quickly. In many cases, the patient dies not from the primary cancer, but from the tumors in the liver; the liver becomes the "life limiting organ." People cannot survive without a liver capable of performing its critical biologic functions: facilitating the conversion of food into energy and filtering toxic agents from the blood. The liver is one of the three most common sites to which cancer may spread. Due to numerous factors, including the absence of viable treatment options, metastatic liver cancer often causes death.

According to the 2002 World Health Report, liver cancer is the third most common form of cancer worldwide, accounting for 616,000 deaths. The American Cancer Society in its "Cancer Facts & Figures 2003" has projected that in the United States there will be approximately 17,300 new cases of primary melanoma and 54,200 new cases of malignant melanoma.

Primary liver cancer is particularly prevalent in Southern Europe, Asia and developing countries, where the primary risk factors for the disease are present. These risk factors include: hepatitis-B, hepatitis-C, relatively high levels of alcohol consumption, aflatoxin, cigarette smoking and exposure to industrial pollutants.

#### CURRENT LIVER CANCER TREATMENTS

The prognosis for primary and secondary liver cancer patients is poor. Although limited treatment options are currently available for liver cancer, they are typically ineffective, are generally associated with significant side-effects and can even cause death. Traditional treatment options, discussed in more detail below, include surgery, chemotherapy, cryosurgery, percutaneous ethanol injection and radiation.

##### Surgery

While surgery is considered the "gold standard" treatment option to address liver tumors, an estimated 75% of liver tumors are unresectable, which means they do not qualify for surgical removal. This is most often due to the following:

- o Operative risk: limited liver function or poor patient health threatens survival as a result of the surgery; or
- o Technical feasibility: the proximity of a cancerous tumor to a critical organ or artery or the size, location on the liver or number of tumors makes surgery not feasible.

For the patients who qualify for surgery, there are significant complications related to the procedure. Recurrence of tumors is common, and in that event, surgery typically cannot be repeated.

We believe that delivery of drugs with the Delcath system may enable surgical removal in some of the cases which are currently inoperable by reducing the size and number of tumors sufficiently to make resection feasible. Shrinking a tumor using chemotherapy and then removing the tumor is a procedure known as adjuvant therapy. After resection, chemotherapy can be administered through the Delcath system with the objective of destroying micro metastases in the liver that may remain undetected, thus preventing or delaying any recurrence of tumor growth.

#### Chemotherapy

The most prevalent form of liver cancer treatment is intravenous chemotherapy. The effectiveness of this treatment, however, is limited by its side effects. Generally, the higher the dosage of chemotherapy administered, the greater its ability to kill cancer cells. However, due to the toxic nature of chemotherapy agents, the higher the dosage administered, the greater damage chemotherapy agents cause to healthy tissues. As a result, the dosage of chemotherapy required to kill cancer cells can be lethal to patients.

The side effects caused by doxorubicin, the drug we are seeking to have approved for use in the Delcath system, are representative of the side-effects associated with many chemotherapy agents. Doxorubicin causes irreversible heart tissue damage. Depending on dosage levels, the damage caused by doxorubicin can be serious and lead to congestive heart failure. Doxorubicin can also cause severe mucositis leading to ulceration of the mouth and digestive organs, damage to a patient's immune system through destruction of bone marrow cells, as well as acute nausea, severe vomiting, dermatological problems and hair loss. The use of doxorubicin can be fatal even when it is administered with careful patient monitoring.

The limited effectiveness of intravenous chemotherapy treatment and its debilitating, often life-threatening, side-effects makes the decision to undergo chemotherapy treatment difficult. In some instances, in an attempt to shrink tumors, a physician may prescribe a radically high-dose of chemotherapy, despite its side effects. In other cases, recognizing the inevitable result of liver cancer, the physician and patient choose only to manage the patient's discomfort from cancer with pain killers while foregoing treatment.

To address this trade-off between the efficacy of intravenous chemotherapy treatment and its dire side effects, physicians have experimented with techniques to isolate the liver from the general circulatory system and to achieve a targeted delivery of chemotherapy agents to the liver. In the 1980's, a physician developed a procedure in which he surgically diverted the blood flow from the liver while infusing high dosages of chemotherapy agents into the liver. A filtration circuit reduced drug concentrations before returning the diverted blood to the patient. The treatment, however, was not embraced by the medical community because it is highly invasive, resulting in prolonged recovery times, long hospital stays and very high costs. Other physicians have experimented with the delivery of chemotherapy agents to the liver by catheter, attempting to use one or more catheters to remove chemotherapy agents before they enter the general circulatory system. We are unaware of any system, however, which contains the patented attributes of the Delcath design.

#### Cryosurgery

Cryosurgery is the destruction of cancer cells using sub-zero temperatures in an open surgical procedure. During cryosurgery, multiple stainless steel probes are placed into the center of the tumor and liquid nitrogen is circulated through the end of the device, creating an ice ball. Cryosurgery involves a cycle of treatments in which the tumor is frozen, allowed to thaw and then refrozen.

While cryosurgery is considered to be relatively effective, we believe adoption of this procedure has been limited because:

- o It is not an option for patients who cannot tolerate an open surgical procedure;
- o It involves significant complications which are similar to other open surgical procedures, as well as liver fracture and hemorrhaging caused by the cycle of freezing and thawing;
- o It is associated with mortality rates estimated to be between one and five percent; and
- o It is expensive compared to other alternatives.

## Percutaneous Ethanol Injection

Percutaneous ethanol injection, or PEI, involves the injection of alcohol into the center of the tumor. The alcohol causes cells to dry out and cellular proteins to disintegrate, ultimately leading to tumor cell death.

While PEI can be successful in treating some patients with primary liver cancer, it is generally considered ineffective on large tumors as well as metastatic tumors. Patients are required to receive multiple treatments, making this option unattractive for many patients. Complications include pain and alcohol introduction to bile ducts and major blood vessels. In addition, this procedure can cause cancer cells to be deposited along the needle track when the needle is withdrawn.

## Radiation Therapy

Radiation therapy uses high dose x-rays to kill cancer cells. Radiation therapy is not considered an effective means of treating liver cancer and is rarely used for this purpose. Radiation is often used as an adjunct to other treatments for liver cancer .

## Implanted Infusion Pumps

Implanted infusion pumps can be used to better target the delivery of chemotherapy agents to the tumor. Arrow International markets an implantable pump typically used to treat colorectal cancer which has metastasized to the liver. This pump, however, lacks a means of preventing the entry of chemotherapy agents into the patient's general circulation after it passes through the liver. This technique does not enable physicians to prescribe higher doses of chemotherapy.

## Other Methods of Treatment

Still other liver cancer treatments include liver transplants, embolization, removal of tumors through the use of radio frequency waves and the use of biological response modulators, monoclonal antibodies and liposomes. The effectiveness of these treatments is limited, many have dose limiting side-effects and none is widely used.

## Treatment with the Delcath System

The Delcath system is designed to address the critical shortcomings of conventional intravenous chemotherapy delivery. The Delcath system isolates the liver from the general circulatory system during liver cancer treatments with chemotherapy agents and then returns the blood exiting the liver to the general circulatory system only after the chemotherapy agent has been substantially removed by filtration outside the body. We believe that the protection from the side-effects of chemotherapy to other parts of the body that is provided by the Delcath system allows for higher chemotherapy doses to the liver than can be administered by conventional intravenous delivery. By filtering out a substantial portion of the chemotherapy agent before the blood is returned to the blood stream, other organs of the body receive less exposure than the liver to the chemotherapy agent. Therefore, these organs are less likely to suffer from the harmful side-effects of chemotherapy, including the cumulative harmful effect that doxorubicin has on the heart muscle.

The Delcath system kit includes the following disposable components that we purchase from third-party suppliers:

- o Infusion catheter -- a thin-walled arterial infusion catheter used to deliver chemotherapy to the liver;
- o Double balloon catheter -- a multi-passageway catheter used to isolate and divert the drug-laden blood exiting the liver;
- o Extracorporeal filtration circuit -- a blood tubing circuit incorporating the disposable components used with a blood pump to push the isolated blood through the system's filters and guide the cleansed blood back to the patient;
- o Filters -- activated carbon blood filters used to remove most of the chemotherapy agent from the isolated blood after it has flowed through the liver and before it returns to the patient's general circulation; and



- o Return catheter -- a thin-walled blood sheath used to deliver the filtered blood from the extracorporeal filtration circuit back into one of the major veins returning blood to the right atrium of the heart.

The double balloon catheter has one large passageway and three smaller passageways. Each of two low-pressure balloons is inflated through one of the three smaller passageways. Blood flows out of the liver through the large passageway to the filtration system. A separate access port attaches to the large passageway and is designed for sampling fluid or flushing the system. The third smaller passageway allows blood exiting the legs and kidneys to bypass the liver and return to the heart.

The Delcath system involves a series of three catheter insertions, each of which is made through the skin. During test procedures, patients are treated with intravenous sedation and local anesthesia at catheter insertion sites. In some cases general anesthesia has been used. An infusion catheter is inserted into the artery through which blood normally flows to the liver. A second catheter -- the Delcath double balloon catheter -- is inserted through the inferior vena cava, a major vessel of the heart. The balloons on the double balloon catheter are then inflated. This procedure prevents the normal flow of blood from the liver to the heart through the inferior vena cava because the inferior vena cava has been blocked. A chemotherapy agent is then infused into the liver through the infusion catheter. The infused blood is prevented from flowing to the heart, but leaves the liver through perforations on the double balloon catheter and flows through this catheter out of the body where the infused blood is pumped through activated charcoal filters to remove most of the chemotherapy agent. The filtered blood is returned to the patient through the jugular vein which leads to the superior vena cava, another major vessel of the heart, thus restoring the cleansed blood to normal circulation. Infusion is administered over a period of thirty minutes. Filtration occurs during infusion and for thirty minutes afterward. The catheters are removed and manual pressure is maintained on the catheter puncture sites for approximately fifteen minutes. The entire procedure takes approximately two to three hours to administer.

During Phase I and Phase II clinical trials, patients remained in the hospital overnight for observation after undergoing treatment with the Delcath system. Once physicians become familiar with using the Delcath system, we expect the procedure to be performed on an outpatient basis, with the patient resuming normal activities the day after the procedure is performed. We expect a patient to undergo an average of four treatments, one every three weeks. A new Delcath system kit is used for each treatment.

Integral to our research and development efforts is our program of clinical research with prominent researchers and physicians that is being conducted presently at The National Cancer Institute and was previously conducted at Yale University, M.D. Anderson Cancer Center and Wright Patterson Air Force Base.

#### OUR PHASE III CLINICAL TRIALS

Phase III clinical trials are a prerequisite for FDA approval of Delcath's pre-marketing application. During these trials, administration of doxorubicin through the Delcath system must be proven to be safe and effective for the treatment of liver cancer. The FDA requires us to demonstrate that delivering doxorubicin using the Delcath system results in patient survival times that are longer than those obtained from administering chemotherapy agents intravenously.

We have conducted Phase I and II clinical trials at three United States medical centers under investigational device and investigational new drug exemptions granted by the FDA. The trials were designed to demonstrate the system's "functionality," or its ability to administer to and extract from the liver approved and marketed chemotherapy agents. Forty-four patients participated in the trials. Twenty-one of these test subjects had primary liver cancer or melanoma which had spread to the liver and were treated with doxorubicin. The remaining twenty-three test subjects suffered from other forms of liver cancer and/or were treated with another chemotherapy agent, 5-FU. These trials demonstrated that the Delcath system was capable of extracting approximately 70% to 85% of the chemotherapy agent administered to the liver. Therefore, the Delcath system permits the delivery of higher dosages of chemotherapy agents to the cancer site while at the same time minimizing damage to healthy tissue.

We believe the results of the clinical trials we have conducted indicate that the Delcath system delivered:

- o more chemotherapy agent to the tumor site; and

- o less chemotherapy agent to the general circulation than delivered by administration of the same dose by intravenous means.

In addition, clinicians involved in the Phase I and Phase II clinical trials observed:

- o reduction in tumor size; and
- o the safety of the system at higher dosage levels of chemotherapy than those used in conventional intravenous chemotherapy delivery.

Further, though not demonstrated in a statistically significant manner because of the limited number of patients tested, clinicians observed survival times of patients treated with the Delcath system which exceeded those that would generally be expected in patients receiving chemotherapy treatment through conventional intravenous means of delivery.

Based on the results of our Phase I and Phase II clinical trials, we submitted to the FDA our application for pre-marketing approval of the Delcath system as a medical device. In response to our application, the FDA classified the Delcath system as a drug delivery system which requires us to obtain approval of new labeling for the drug being used in the clinical trials. The application to change the labeling must be filed by a drug manufacturer holding an existing new drug application or an abbreviated new drug application. We have reached a preliminary verbal understanding with a drug manufacturer holding an existing license for doxorubicin to submit an application to the FDA supporting the new labeling based on data from the Phase III clinical trial. The pre-marketing approval and drug relabeling applications must demonstrate the clinical utility of a particular drug when administered through the Delcath system. To do so, we must demonstrate, in a statistically meaningful manner, that administering chemotherapy agents with the Delcath system results in survival times of patients that are longer than those obtained from administering chemotherapy agents intravenously.

With a substantial portion of the proceeds that we receive from this offering, we intend to conduct Phase III clinical trials designed to demonstrate that administering doxorubicin with the Delcath system to treat malignant melanoma that has spread to the liver results in patient survival times that are longer than those obtained from administering chemotherapy agents intravenously.

In December 1999, the FDA approved our protocols for conducting the Phase III clinical trials.

We expect the Phase III clinical trials to be conducted at several medical centers such as the NCI and the Sydney Cancer Center and to involve a minimum of 122 test subjects who will be treated for malignant melanoma that has spread to the liver. Half of these test subjects will be treated with doxorubicin administered using the Delcath system and the other half, the control group, will be treated with either of two specified chemotherapy agents delivered intravenously. Trials will commence upon approval of a budget by the respective institutions. Once a budget is approved, the trials will commence at that institution. We expect that trials will begin in 2003. However, our timetable is subject to uncertainty and we cannot assure you that we can meet our planned schedule. We do not know whether all of the medical centers we have identified will be available to conduct the clinical trials when we are in a position to have them commence or that we will be ready to commence the trials within any particular time period.

We intend to hire a contract research organization ("CRO") to conduct these trials. The CRO represents the clinical trial sponsor. They ensure that the principal investigator follows the established protocol and collects the clinical data. We have not begun negotiations with a CRO and we cannot assure you that we will be able to engage a CRO on acceptable terms and conditions in a timely manner or at all. The CRO and principal investigators conducting the clinical trials are not our employees. As a result, we have limited control over their activities and can expect that only limited amounts of their time will be dedicated to our clinical trials. They may fail to meet their contractual obligations or fail to meet regulatory standards in the performance of their obligations, and we may not be able to prevent or correct their failures. Failure of the CRO to perform as expected or required, including failure of the principal investigators to enroll a sufficient number of patients for our trials, could result in the failure of the clinical trials and the failure to obtain FDA

pre-marketing approval. We believe that we will acquire sufficient data to seek FDA pre-marketing approval of the Delcath system within twelve to eighteen months of the last patient enrolled.

We do not know how long the FDA may take to evaluate our submission, and they may require that additional trials be conducted or may not grant approval.

The FDA pre-marketing approval we are currently seeking is limited to administration of doxorubicin with our Delcath system to treat patients suffering from metastatic melanoma which has spread to the liver. If we are granted this approval, we plan to seek additional FDA pre-marketing approvals for using the Delcath system with other chemotherapy agents for treatment of other liver cancers and with anti-viral drugs for treatment of other diseases, such as hepatitis. In many instances, the process of applying for and obtaining regulatory approvals involves rigorous pre-clinical and clinical testing. The time, resources and funds required for completing necessary testing and obtaining approvals is significant, and FDA pre-marketing approval may never be obtained for some medical devices or drug delivery systems. If we fail to raise the additional capital required or enter into strategic partnerships to finance this testing or if we fail to obtain the required approvals, our potential growth and the expansion of our business would likely be limited.

#### OUR CLINICAL TRIAL AND AGREEMENT WITH THE NATIONAL CANCER INSTITUTE

In June 2001, the Company announced that The National Institutes of Health/The National Cancer Institute approved a clinical study protocol for administering escalating doses of another chemotherapy agent, melphalan, through the Delcath system to patients with unresectable cancer of the liver.

The Phase I clinical trial conducted at The National Cancer Institute ("NCI") began in September 2001 and involved a total of 24 patients, all experiencing metastatic liver cancer. The goal of a Phase I Clinical trial is to determine the maximum tolerated dose of melphalan that can be administered before it becomes toxic to the patient's system.

This clinical trial, which will also include a Phase II study, is subject to the terms and conditions of the Cooperative Research and Development Agreement (the "CRADA") between us and NCI. We obtained FDA approval to conduct the Phase I clinical trial; however, further FDA approval is necessary to conduct Phase II studies. The goal of a Phase II clinical trial is to determine various factors such as the appropriate dosage, the timing of each dose and the efficacy of the proposed dose. We cannot estimate how long it will be until we receive FDA approval to commence the Phase II study. The scope of the study is:

- o To develop a Delcath system-based Phase I treatment protocol for the regional therapy of organs using escalating doses of melphalan delivered through the utilization of the Delcath system; and
- o To develop Delcath system-based Phase II treatment protocols as a follow-up to Phase I studies. The Phase II study will involve patients with specific histologies (diseases) who have unresectable cancers confined to the liver using the maximum tolerated dose of melphalan administered using the Delcath system.

The patients will be treated with up to four series of infusions based upon toxicity and response to treatment. The Phase II study is expected to begin shortly after completion of the Phase I study and to take twelve to eighteen months.

The CRADA commits NCI to perform the research necessary under the Phase I and Phase II protocols approved by the FDA with Delcath acting as the sponsor and NCI providing the principal investigator. Delcath will provide funding to NCI in the amount of \$918,750 payable in quarterly installments over the five-year term of the agreement unless the CRADA is terminated early. The CRADA can be terminated at any time by either party. In the event of an early termination, we would be responsible for unfunded costs incurred prior to the termination date and all reasonable termination costs. The term of the agreement is intended to allow for what the parties expect to be the potential maximum amount of time necessary to complete and evaluate Phase I and Phase II trials. An amendment to the CRADA would be necessary if the parties decide to initiate additional clinical trials using other chemotherapy agents. We are using money raised in our initial public offering and will use a portion of the net proceeds this offering to fund this project. If the results of the Phase I and Phase II trials are successful, we will probably need additional capital to pay for the expenses associated with a Phase III clinical trial.

#### RESEARCH FOR HEPATITIS TREATMENT

Another disease that attacks the liver is viral hepatitis. The incidence of viral hepatitis in the United States and worldwide is increasing. The long-range effects of some forms of hepatitis can include massive death of liver cells, chronic active hepatitis, cirrhosis and hepatoma. The current treatment for viral hepatitis is limited and includes long-term injections of interferon alpha, which is similar to chemotherapy in its toxicity and dosage limitations. We plan to seek a strategic partner to conduct clinical trials to determine the feasibility of using the Delcath system to administer anti-viral drugs, including interferon alpha, in the treatment of viral hepatitis. We have not entered into any arrangements, understandings or agreements with potential strategic partners.

#### SALES AND MARKETING

We intend to focus our marketing efforts on the sixty-one NCI designated Cancer Centers in the United States recognized by NCI, beginning with the hospitals participating in the Phase III clinical trials, as well as key foreign institutions including the Sydney Melanoma Unit of the University of Sydney Sydney Cancer Centre. We will focus these efforts on two distinct groups of medical specialists in these comprehensive cancer centers:

- o oncologists who have primary responsibility for the patient; and
- o interventional radiologists who are members of the hospital staff and work with catheter-based systems.

Upon diagnosis of cancer, a patient is usually referred to a medical oncologist. This physician generally provides palliative treatments (non-curative) and refers the patient to a surgical oncologist if surgery appears to be an option. Both medical and surgical oncologists will be included in our target market. Generally, oncologists do not position catheters. This is done either by an interventional radiologist or a surgeon.

We plan to hire a marketing director at such time as we receive an indication from the FDA that approval of the Delcath system is forthcoming and then hire a sales manager and four sales representatives to market the system in the United States.

In addition, if we can establish foreign testing and marketing relationships, we plan to utilize one or more corporate partners to market products outside the United States. We believe distribution or corporate partnering arrangements will be cost effective, will be implemented more quickly than a direct sales force established by us in such countries and will enable us to capitalize on local marketing expertise in the countries we target.

Since we plan to sell the Delcath system to a large number of hospitals and physician practices, we do not expect to be dependent upon one or a few customers.

Market acceptance of the Delcath system will depend upon:

- o the ability of our clinical trials to demonstrate against the control group a statistically measurable increase in life expectancy for the kinds of cancers treated at a cost effective price;
- o our ability to educate physicians on the use of the system and its benefits compared to other treatment alternatives; and
- o our ability to convince healthcare payors that use of the Delcath system results in reduced treatment costs of patients.

This will require substantial efforts and expenditures.

#### NISSHO AGREEMENT

In December 1996, we entered into an agreement with Nissho Corporation, a large manufacturer and distributor of medical devices and pharmaceuticals based in Osaka, Japan which grants to Nissho the exclusive right to distribute the Delcath system in Japan, China, Korea, Hong Kong and Taiwan until December 31, 2004. Nissho, at that time, invested \$1,000,000 in Delcath.

Products covered by the agreement include the Delcath system for the treatment of cancer in the liver and the lower extremities, as well as new products that may be added by mutual agreement. Nissho is required to purchase products from Delcath in connection with clinical trials and for resale in its market at prices to be determined by mutual agreement. Nissho has agreed, in its territory, not to engage in the business of manufacturing, distributing or selling systems similar to the Delcath system for the liver or other organs or body regions.

#### THIRD-PARTY REIMBURSEMENT

Because the Delcath system is characterized by the FDA as an experimental device, its use is not now reimbursable in the United States. We will not seek to have third-party payors, such as Medicare, Medicaid and private health insurance plans, reimburse the cost of the Delcath system until after its use is approved by the FDA.

We believe that the Delcath system will provide significant cost savings in that it should reduce treatment and hospitalization costs associated with the side-effects of chemotherapy. Our planned wholesale price to the hospitals for the Delcath system kit is approximately \$4,000. A patient normally undergoes four treatments with the Delcath system, each requiring a new system kit. Each treatment with the Delcath system, including the cost of the treatment kit, has an estimated cost of approximately \$12,000, resulting in a total estimated treatment cost of approximately \$48,000. This compares to a total estimated cost of conventional aggressive chemotherapy treatment of approximately \$160,000 to \$180,000, which includes the hospitalization and treatment costs associated with the side-effects of the systemic delivery of chemotherapy agents.

#### MANUFACTURING

We plan to utilize contract manufacturers to manufacture the components of the Delcath system. In order to maintain quality control, we plan to perform final assembly and packaging in our own facility. If we undertake these operations, our facility will be required to comply with the FDA's good manufacturing practice and quality system requirements. If we sell the Delcath system in some foreign markets, our facility will also need ISO 9000 approval from the European Union which is a required approval that European manufacturers must obtain from the International Organization for Standardization.

The double balloon catheter is being manufactured domestically by the Burrion OEM division of B. Braun Medical, Inc. of Germany. The double balloon catheter must be manufactured in accordance with manufacturing and performance specifications that are on file with the FDA. Burrion has demonstrated that the components it manufactures meet these specifications. Burrion's manufacturing facility is ISO 9000 approved, which will allow the use of the catheter in European markets. B. Braun has experience in obtaining regulatory approval for medical products in European markets and has indicated informally that it will assist us in this process. We have not entered into a written agreement with Burrion to manufacture the catheter either for the clinical trials or for commercial sale.

Medtronic USA, Inc. manufactures the components of the blood filtration circuit located outside of the body, including the medical tubing through which a patient's blood flows and various connectors, as well as the blood filtration

pump head. Medtronic is a manufacturer of components used for extracorporeal blood circulation during cardiac surgery. The components manufactured by Medtronic have been cleared by the FDA for other applications and can, therefore, be sourced off the shelf. These components, however, must comply with manufacturing and performance specifications for the Delcath system that are on file with the FDA. Medtronic has demonstrated that the components it manufactures meet these specifications. Medtronic's manufacturing facility is also ISO 9000 approved and, thus, the components it manufactures may be used in European markets.

Currently, we purchase the activated charcoal filters used in the Delcath system from Asahi Medical Products of Japan. Asahi has informed us that it will discontinue manufacturing these filters in the near future. We have ordered a final shipment of filters from Asahi which we expect will be sufficient to meet our needs for the next twelve months. However, as part of our application process with the FDA, we obtained approval to utilize filters from any manufacturer that falls within certain performance parameters and meets the specifications on file with the FDA. Therefore, we are currently actively seeking an alternative filter manufacturer that is capable of providing us with the quality of filters that are required to meet the specifications on file with the FDA in the quantity that we will require to conduct future clinical trials and to market the Delcath system commercially. We have already identified one potential supplier in the United States.

#### COMPETITION

The healthcare industry is characterized by extensive research efforts, rapid technological progress and intense competition from numerous organizations, including biotechnology firms and academic institutions. Competition in the cancer treatment industry, and specifically the markets for systems and devices to improve the outcome of chemotherapy treatment for cancer, is intense. We believe that the primary competitive factors for products addressing cancer include safety, efficacy, ease of use, reliability and price. We also believe that physician relationships, especially relationships with leaders in the interventional radiology and oncology communities, are important competitive factors.

The Delcath system competes with all forms of liver cancer treatments that are alternatives to resection including radiation, intravenous chemotherapy and chemotherapy through implanted infusion pumps, liver transplants, embolization, cryosurgery, radiowave ablation and the use of biological response modulators, monoclonal antibodies and liposomes. Many of Delcath's competitors have substantially greater financial, technological, research and development, marketing and personnel resources. In addition, some of our competitors have considerable experience in conducting clinical trials and other regulatory approval procedures. Our competitors may develop more effective or more affordable products or treatment methods, or achieve earlier product development or patent protection, in which case our chances to achieve meaningful revenues or profitability will be substantially reduced.

Many large pharmaceutical companies and research institutions are developing systems and devices to improve the outcome of chemotherapy treatment for cancer. Arrow International currently markets an implantable infusion pump, which has been successful in facilitating regional drug delivery. However, Arrow's pump lacks a means of preventing the entry of these agents into the patient's general circulation after they pass through the liver. Other companies, including Merck & Co., Inc., are developing various chemotherapy agents with reduced toxicity, while other companies are developing products to reduce the toxicity and side-effects of chemotherapy treatment. In addition, gene therapy, vaccines and other minimally invasive procedures are currently being developed as alternatives to chemotherapy.

Technological developments are expected to continue at a rapid pace in both industry and academia which could result in a short product life cycle for our Delcath system.

#### GOVERNMENT REGULATION

General. The manufacture and sale of medical devices and drugs are subject to extensive governmental regulation in the United States and in other countries. The Delcath system is regulated in the United States as a drug delivery system by the FDA under the Federal Food, Drug and Cosmetic Act. As such, it requires approval by the FDA of a pre-marketing application prior to commercial distribution.

Doxorubicin, the drug that we are initially seeking to have approved for delivery by the Delcath system, is a widely used chemotherapy agent that has been approved by the FDA. Melphalan, the drug that will be administered through the Delcath system in the NCI-sponsored study, is a chemotherapy agent that has also been approved by the FDA. Like all approved drugs, the approved labeling includes indications for use, method of action, dosing, side-effects

and contraindications. Because the Delcath system delivers doxorubicin through a mode of administration and at a dose strength that differs from those currently approved, approval for revised labeling of doxorubicin and melphalan products permitting their use with the Delcath system must be obtained. The application to change the labeling must be filed by a drug manufacturer holding an existing new drug application or an abbreviated new drug application. We are currently in discussions with a drug manufacturer who holds an existing license for doxorubicin for the manufacturer to submit an application supporting the new labeling, assuming data from the Phase III clinical trial is favorable. We are also currently in discussions with the drug manufacturers that hold a new drug application or an abbreviated new drug application and plan actively to solicit one of them to file an application for new labeling with the FDA for doxorubicin.

Under the Federal Food, Drug and Cosmetic Act, the FDA regulates the pre-clinical and clinical testing, design, manufacture, labeling, distribution, sales, marketing, post-marketing reporting, advertising and promotion of medical devices and drugs in the United States. Noncompliance with applicable requirements could result in different sanctions such as:

- o suspension or withdrawal of clearances or approvals;
- o total or partial suspension of production, distribution, sales and marketing;
- o fines;
- o injunctions;
- o civil penalties;
- o recall or seizure of products; and
- o criminal prosecution of a company and its officers and employees.

Our contract manufacturers are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control and disposal of hazardous or potentially hazardous substances.

Medical Devices. The Delcath system is a Class III medical device. Class III medical devices are those which are subject to the most stringent regulatory controls because insufficient information exists to assure safety and efficacy solely through general or special controls such as labeling requirements, mandatory performance standards and post-market surveillance. As such, FDA pre-marketing approval is required for Class III medical devices. It is subject to the most stringent controls applied by the FDA to assure reasonable safety and effectiveness. An application for pre-marketing approval must be supported by data concerning the device and its components, including the manufacturing and labeling of the device and the results of animal and laboratory testing and human clinical trials. The conduct of Phase III clinical trials is subject to regulations and to continuing oversight by institutional review boards at hospitals and research centers that sponsor the trials and by the FDA. These regulations include required reporting of adverse events from use of the device during the trials. Before commencing clinical trials, we obtained an investigational device exemption providing for the initiation of clinical trials. We also obtained approval of our investigational plan, including the proposed protocols and informed consent statement that patients sign before undergoing treatment with the Delcath system, by the institutional review boards at the sites where the trials were conducted. Under the Federal Food, Drug, and Cosmetic Act, clinical studies for "significant risk" Class III devices require obtaining such approval by institutional review boards and the filing with the FDA of an investigational device exemption at least thirty days before initiation of the studies.

Given the short life expectancy of patients suffering from metastatic melanoma of the liver, we believe the FDA will review our pre-market application expeditiously and respond to our submission of the Delcath system for commercial sale within three months. However, approval of the Delcath system may take longer if the FDA requests substantial additional information or clarification, or if any major amendments to the application are filed. In addition, the FDA may refer this matter to an advisory committee of experts to obtain views about the Delcath system. This process is referred to as a "panel review," and could delay the approval of the Delcath system. The FDA will usually inspect the applicant's manufacturing facility to ensure compliance with quality systems regulations prior to approval of an application. The FDA also may conduct bio-research monitoring inspections of the clinical trial sites and the applicant to ensure data integrity and that the studies were conducted in compliance with the applicable FDA regulations, including good clinical practice regulations.

If the FDA's evaluations of the application, clinical study sites and manufacturing facilities are favorable, the FDA will issue either an approval letter or an "approvable letter" containing a number of conditions that must be met in order to secure approval of an application. If and when those conditions have been fulfilled to the satisfaction of the FDA, the agency will issue an order approving the application, authorizing commercial marketing of the device under specified conditions of use. If the FDA's evaluation of the application, the clinical study sites or the manufacturing facilities is not favorable, the FDA will deny approval of the application or issue a "not approvable letter." The FDA may also determine that additional pre-clinical testing or human clinical trials are necessary before approval, or that post-approval studies must be conducted.

The FDA's regulations require agency approval of an application supplement for changes to a device if they affect the safety and effectiveness of the device, including new indications for use; labeling changes; the use of a different facility or establishment to manufacture, process or package the device; changes in vendors supplying components for the device; changes in manufacturing methods or quality control systems; and changes in performance or design specifications. Changes in manufacturing procedures or methods may be implemented and the device distributed thirty days after the FDA is provided with notice of these changes unless the FDA advises the pre-market approval application holder within thirty days of receipt of the notice that the notice is inadequate or that pre-approval of an application supplement is required.

Approved medical devices remain subject to extensive regulation. Advertising and promotional activities are subject to regulation by the FDA and by the Federal Trade Commission. Other applicable requirements include the FDA's medical device reporting regulations, which require that we provide information to the FDA on deaths or serious injuries that may have been caused or contributed to by the use of marketed devices, as well as product malfunctions that would likely cause or contribute to a death or serious injury if the malfunction were to recur. If safety or efficacy problems occur after the product reaches the market, the FDA may take steps to prevent or limit further marketing of the product. Additionally, the FDA actively enforces regulations prohibiting marketing or promoting of devices or drugs for indications or uses that have not been cleared or approved by the FDA. Further, the Food, Drug and Cosmetic Act authorizes the FDA to impose post-market surveillance requirements with respect to a Class III device which is reasonably likely to have a serious adverse health consequence or which is intended to be implanted in the human body for more than one year or to be a life sustaining or life supporting device used outside a hospital or ambulatory treatment center.

The Food, Drug and Cosmetic Act regulates a device manufacturer's design control, quality control and manufacturing procedures by requiring the manufacturer to demonstrate and maintain compliance with quality systems regulations including good manufacturing practices and other requirements. These regulations require, among other things, that:

- o design controls, covering initial design and design changes be in place;
- o the manufacturing process be regulated, controlled and documented by the use of written procedures; and
- o the ability to produce devices which meet the manufacturer's specifications be validated by extensive and detailed testing of every aspect of the process.

The FDA monitors compliance with quality systems regulations, including good manufacturing practice requirements, by conducting periodic inspections of manufacturing facilities. If violations of the applicable regulations are found during FDA inspections, the FDA will notify the manufacturer of such violations and the FDA, administratively or through court enforcement action, can prohibit further manufacturing, distribution, sales and marketing of the device until the violations are cured. If violations are not cured within a reasonable length of time after the FDA provides notification of such violations, the FDA is authorized to withdraw approval of the pre-marketing approval application.

Investigational devices that require FDA pre-marketing approval in the United States but have not received such approval may be exported to countries belonging to the European Union, European Economic Area and some other specified countries, provided that the device is intended for investigational use in accordance with the laws of the importing country, has been manufactured in accordance with the FDA's good manufacturing practices or ISO standards, is labeled on the outside of the shipping carton "for export only," is not sold or offered for sale in the United States and complies with the specifications of the foreign purchaser. The export of an investigational device for investigational use



to any other country requires prior authorization from the FDA. An investigational device may be exported for commercial use only as described below, under "Foreign Regulation."

Drugs. A manufacturer of a chemotherapy agent must obtain an amendment of a supplemental new drug application for a chemotherapy product providing for its use with the Delcath system before the system may be marketed in the United States to deliver that agent to the liver or any other site. The FDA-approved labeling for both doxorubicin and melphalan does not provide for its delivery with the Delcath system. We must partner with the holders of an approved new drug application for doxorubicin and melphalan to make this change to the labeling of both agents. We are seeking to partner with drug companies for this purpose, but we have no assurance that we will find partners or that the FDA will approve the application. If this approval is obtained, it would not have a negative effect on the manufacturers of either doxorubicin or melphalan. Rather, the drug manufacturer would have the opportunity to expand the use of the drugs as a result of changing their label to include the Delcath labeling.

Phase III clinical trial protocols using doxorubicin have been approved by the FDA under our investigational new drug application. FDA regulations also require that prior to initiating the trials the sponsor of the trials obtain institutional review board approval from each investigational site that will conduct the trials. We are seeking the approval of institutional review boards at several medical centers by assembling and providing them with information with respect to the trials.

The FDA requires that, in order to obtain approval to re-label doxorubicin for delivery using the Delcath system, we demonstrate that delivering doxorubicin using the system results in patient survival times that are longer than those obtained from administering chemotherapy agents intravenously.

The approved Phase III clinical trial protocols are designed to obtain approval of both new drug labeling and a pre-marketing approval application providing for the use of doxorubicin with the Delcath system. The trial protocols were approved by both the FDA division that approves new drugs and the division that reviews applications to market new devices. All of the data generated in the trials will be submitted to both of these FDA divisions. The foregoing facts will also apply if our clinical trial using melphalan is successful in Phases I, II and III.

If we successfully complete the clinical trials with both agents, we believe the manufacturers of doxorubicin and melphalan will submit to the FDA an application to deliver the agent to the liver through the Delcath system. Under the Food, Drug and Cosmetic Act, the Delcath system cannot be marketed until the new drug application, or supplemental new drug application and the pre-marketing approval application are approved, and then only in conformity with any conditions of use set forth in the approved labeling.

Foreign Regulation. In order for Nissho or any other foreign strategic partner to market our products in Asia, Europe, Latin America and other foreign jurisdictions, they must obtain required regulatory approvals or clearances and otherwise comply with extensive regulations regarding safety and manufacturing processes and quality. These regulations, including the requirements for approvals or clearances to market, may differ from the FDA regulatory scheme. In addition, there may be foreign regulatory barriers other than pre-marketing approval or clearance.

In April 1996, legislation was enacted that permits a medical device which requires FDA pre-marketing approval but which has not received such approval to be exported to any country for commercial use, provided that the device:

- o complies with the laws of that country;
- o has valid marketing authorization or the equivalent from the appropriate authority in any of a list of industrialized countries including Australia, Canada, Israel, Japan, New Zealand, Switzerland, South Africa and countries in the European Economic Union; and
- o meets other regulatory requirements regarding labeling, compliance with the FDA's good manufacturing practices or ISO manufacturing standards, and notification to the FDA.

In order for us to market and sell the Delcath system in the European Community, we must obtain a CE mark, which is the official marking required by the European Community for all electric and electronic equipment that will be sold anywhere in the European Union, except for limited use as a clinical trial device. Supplemental device approvals also might be required to market and sell the Delcath system.

## PATENTS, TRADE SECRETS AND PROPRIETARY RIGHTS

Our success depends in large part on our ability to obtain patents, maintain trade secret protection and operate without infringing on the proprietary rights of third parties. Because of the length of time and expense associated with bringing new products through development and regulatory approval to the marketplace, the health care industry has traditionally placed considerable emphasis on obtaining patent and trade secret protection for significant new technologies, products and processes. We hold the following seven United States patents, as well as three corresponding foreign patents in Canada, Europe and Japan:

Summary Description of Patents -----	Patent No. -----
Isolated perfusion method for cancer treatment	U.S. #5,069,662
Isolated perfusion device -- catheter for use in isolated perfusion in cancer treatment	U.S. #5,411,479
Device and method for isolated pelvic perfusion	U.S. #5,817,046
Catheter design to allow blood flow from renal veins and limbs to bypass occluded segment of IVC	U.S. #5,893,841
Balloon inside catheter to restrict blood flow or prevent catheter from moving	U.S. #5,897,533
Catheter with slideable balloon to adjust isolated segment	U.S. #5,919,163
Isolated perfusion method for kidney cancer	U.S. #6,186,146

We plan to enforce our intellectual property rights vigorously. In addition, we will conduct searches and other activity relating to the protection of existing patents and the filing of new applications.

In addition to patent protection, we rely on unpatented trade secrets and proprietary technological expertise. We rely, in part, on confidentiality agreements with our marketing partners, employees, advisors, vendors and consultants to protect our trade secrets and proprietary technological expertise. These agreements may not provide meaningful protection of our proprietary technologies or other intellectual property if unauthorized use or disclosure occurs.

## EMPLOYEES

As of February 28, 2003, we had 5 full-time employees. Upon completion of this offering, we intend to recruit additional personnel. None of our employees is represented by a union and we believe relationships with our employees are good.

In addition to our full-time employees, we engage the services of medical and scientific consultants.

## Facilities

We currently occupy approximately 3,600 square feet of office space at 1100 Summer Street, Stamford, Connecticut, pursuant to a lease which will expire in 2003. We have occupied these facilities since 1992 and the space is adequate for our current needs. If we require additional space in the future, we believe that satisfactory space will be available at commercially reasonable rates in or near our current facility.

The Company believes that its facilities and equipment are in good condition and are suitable for its operations as presently conducted and for its foreseeable future operations.

## MANAGEMENT

### EXECUTIVE OFFICERS AND DIRECTORS

Our executive officers and directors are as follows:

Name ----	Age ---	Position -----
M. S. Koly	62	President, Chief Executive Officer, Treasurer and Director
Samuel Herschkowitz, M.D.	53	Chairman, Chief Technical Officer and Director
Thomas S. Grogan	51	Chief Financial Officer
Mark A. Corigliano	39	Director
Daniel Isdaner	38	Director

M. S. Koly has been our President, Chief Executive Officer and Treasurer since 1999. In 1988, Mr. Koly was elected to our board of directors. From 1987 until June 1998, Mr. Koly managed Venkol Ventures, L.P. and Venkol Ventures, Ltd., firms he co-founded with Dr. Herschkowitz. From 1983 to 1987, Mr. Koly was president of Madison Consulting Corporation, a firm he founded. From 1978 to 1983, Mr. Koly was president of Becton-Dickinson Respiratory Systems. Prior to that time, he held various senior management positions at Abbott Laboratories, Stuart Pharmaceuticals and National Patent Development Corp. He received a B.A. from American University and an M.B.A. in marketing and finance from Northwestern University.

Samuel Herschkowitz, M.D., has been our Chief Technical Officer since 1999. In 1988, Dr. Herschkowitz was elected the Chairman of our board of directors. In 1987, he co-founded Venkol Ventures L.P. and Venkol Ventures, Ltd., two affiliated venture capital funds specializing in medical technology investments, which are no longer active. Dr. Herschkowitz is board certified in psychiatry and neurology. He is an assistant professor at New York University Medical Center, and has held academic positions at Beth Israel Hospital, Mount Sinai Medical School and Downstate Medical Center. Dr. Herschkowitz graduated from Syracuse University and received his medical degree from Downstate Medical Center College of Medicine.

Thomas S. Grogan was appointed the Company's Chief Financial Officer in September 2001. Prior to joining Delcath, Mr. Grogan was Vice President of Business Development for The Jockey Club from 2000-2001. In 1999, he was the Chief Financial Officer for U.S. Homecare Corporation, a publicly traded provider of home healthcare services. From 1998-1999, he was the Chief Financial Officer of the healthcare division of Fairchild Properties, a privately held owner and operator of skilled nursing facilities. From 1993-1998, he was the Chief Financial Officer of NHS National Health Services, Inc., a privately held provider of medical services to corporations, industrial sites and corrections institutions. He is a CPA, and holds a B.A. degree from Fordham University and an M.B.A. degree from Cornell University.

Mark A. Corigliano was elected to our board of directors in 2001. Since 1991, Mr. Corigliano has been Managing Director of Coast Cypress Associates, a company that designs and implements microcomputer systems. His specialty is the design and installation of accounting systems. Since 1993, he has also served in a senior financial capacity as Controller and Manager of Special Projects for DC Associates, a restaurant management organization located in New York City. Mr. Corigliano also serves as Treasurer of Rolls Royce Owners' Club, a non-profit organization with 8,500 members worldwide. He holds a B.S. degree in accounting from Seton Hall University.

Daniel Isdamer was elected to our board of directors in 2001. Since 1994, Mr. Isdamer has been the owner and director of Camp Mataponi, Inc., a children's' summer camp located in Naples, Maine. He also serves on the board of directors of the American Camping Association-New England Division and the Jewish Community Center of Southern New Jersey. Mr. Isdamer holds a B.S.B.A. degree from the Boston University School of Management.

Victor Nevins was elected to our board of directors in 2001. Since 1957, Mr. Nevins has been Chief Executive Officer of Max Abramson Enterprises, a medium-sized privately held conglomerate headquartered in Flushing, New York. He also is a licensed real estate broker and, in 1962, he founded Victor Nevins Realty. From 1968-1997, he served on the board of directors of Flushing Hospital and Medical Center as Vice President of the Board, member of the Finance Committee, Chairman of both the House and Grounds and Human Resources Committees and liaison to the Medical Board. He currently is a Director and past President of the Flushing Chamber of Commerce, a Director of the Flushing Merchants Association, and a Director of the American Red Cross, North Shore Chapter.

#### CLASSIFIED BOARD OF DIRECTORS

Our board of directors is divided into three classes of directors serving staggered three-year terms. As a result, approximately one-third of the board of directors will be elected each year. These provisions, together with the provisions of our amended and restated certificate of incorporation and by-laws, allow the board of directors to fill vacancies on or increase the size of the board of directors, and may deter a stockholder from removing incumbent directors and filling such vacancies with its own nominees in order to gain control of the board.

Each of our directors has been elected to serve until his successor has been elected and duly qualified. The directorship terms of Mr. Nevins and Mr. Corigliano will expire at the annual meeting of stockholders in 2003, the

directorship term of Mr. Isdaner will expire at the annual meeting of stockholders in 2004 and the directorship terms of Dr. Herschkowitz and Mr. Koly will expire at the annual meeting of stockholders in 2005.

#### COMMITTEES OF THE BOARD OF DIRECTORS

We have established an audit committee and a compensation and stock option committee.

The audit committee approves the selection of our independent accountants and meets and interacts with the independent accountants to discuss questions in regard to financial reporting. In addition, the audit committee reviews the scope and results of the audit with the independent accountants, reviews with management and the independent accountants our annual and quarterly operating results, considers the adequacy of our internal accounting procedures and considers and reports to the board of directors with respect to other auditing and accounting matters. The audit committee also reviews the fees to be paid to and the performance of our independent accountants. Currently, the members of the audit committee are of Messrs. Corigliano and Isdaner. Messrs. Corigliano and Isdaner satisfy the requirements for independent directors contained in the rules governing companies listed on the Nasdaq Stock Market.

The compensation and stock option committee reviews the salaries and benefits of all officers and stock option grants of all employees, consultants, directors and other individuals compensated by us. The compensation and stock option committee is empowered by the board of directors to act independently. The compensation and stock option committee also administers our stock option and other employee benefits plans. Currently, the members of the compensation and stock option committee are Messrs. Nevins and Corigliano.

#### DIRECTOR COMPENSATION

Our current policy regarding compensation of directors provides that directors may be paid a fixed sum for their attendance at each meeting of the board of directors or a stated salary as a director, and each may be reimbursed for his or her expenses. Currently, directors who are also employees do not receive any compensation for serving on the board of directors. Non-employee directors receive \$750 for each meeting of the board of directors attended in person or participated in telephonically. Currently, non-employee directors do not receive any other compensation. In addition, each non-employee director that served on our board of directors in 1999 received a one-time grant in January 1999 of options to purchase 34,505 shares of common stock at a price of \$4.93 per share, all of which are vested, and received a separate one-time grant in December 1999 of options to purchase 22,428 shares of common stock at a price of \$2.90 per share, all of which are vested. In December 2001, each non-employee director received an option to purchase 30,000 shares of common stock at a purchase price of \$0.85 per share that vest as to 50% of the shares covered on the first and second anniversaries of the date of grant.

On September 17, 2002, our compensation and stock option committee granted stock options to Mr. Koly and Dr. Herschkowitz, at an exercise price equal to \$0.71 per share, the fair market value at the close of trading on that date as reported by The Wall Street Journal. On September 17, 2002, our compensation and stock option committee granted stock options to directors other than Mr. Koly and Dr. Herschkowitz, at an exercise price of \$0.71 per share, the fair market value at the close of trading on that date as reported by The Wall Street Journal. The stock options granted to the directors during 2002 are indicated below:

Name	Incentive Stock Options	Non-Qualified Stock Options
M. S. Koly	100,000	0
Samuel Herschkowitz, M.D.	30,000	0
Mark Corigliano	0	30,000
Daniel Isdaner	0	30,000
Victor Nevins	0	30,000

KEY EMPLOYEES

James P. Bartley has been the Director of Operations since March of 2001. Mr. Bartley has a professional background in healthcare administration and is a Diplomate in the American College of Healthcare Executives. He possesses a Masters degree in Education from the University of Virginia, as well as a masters degree in Healthcare Policy and Management from New York Medical College. Prior to his current position, he served in several management positions at Lawrence Hospital, St. Vincent's Hospital and the North Shore Long Island Jewish Health System.

SCIENTIFIC ADVISORS AND CONSULTANTS

We seek to expand the breadth of expertise and experience available to us through the use of consultants and advisors. We coordinate these advisors, including nine M.D.'s and Ph.D.'s to organize, conduct and monitor clinical and pre-clinical testing, regulatory filings and responses, product development and manufacturing and publication and presentation of the results of our research. These individuals bring a broad range of competencies to our operations. The scientific advisors are independent professionals who meet on an individual basis with management when so requested. We seek as scientific advisors recognized experts in relevant sciences or clinical medicine to advise us about present and long-term scientific planning, research and development.

There is no fixed term of service for the scientific advisors. Current members may resign or be removed at any time and additional members may be appointed. Members do not serve on an exclusive basis with Delcath, are not under contract, other than with respect to confidentiality obligations, and are not obligated to present corporate opportunities to us. To our knowledge, none of the members is working on the development of competitive products. Inventions or products developed by a scientific advisor who is not otherwise affiliated with us will not become our property.

Scientific advisors who are not affiliated with us are paid a per diem fee for their services. All members receive reimbursement for expenses incurred in traveling to and attending meetings on behalf of Delcath.

Our scientific advisors and collaborators include the following doctors in the fields of surgical oncology and interventional radiology:

Name ----	Title -----	Specialty -----	Relationship to Delcath -----
Morton G. Glickman, M.D.	Professor Emeritus of Diagnostic Radiology, Yale University School of Medicine	Cardiovascular and Interventional Radiology	Founder and Stockholder
William N. Hait, M.D., Ph.D.	Director, The Cancer Institute of New Jersey	Medical Consultant and Scientific Advisor	Founder and Stockholder
T.S. Ravikumar, M.D.	Chairman, Department of Surgery, Montefiore Medical Center	Surgical Oncology	Former Principal Investigator of the Delcath system

Morton G. Glickman, M.D. was educated at Cornell University (B.A.) and Washington University (M.D.). He also received an honorary M.A. from Yale. He was a resident at the University of California. He served as the Chief of Neuro and Vascular Radiology at San Francisco General Hospital from 1969 to 1973 and has held numerous academic and professional appointments at Yale University School of Medicine, currently serving as associate Dean and Vice Chairman of Diagnostic Radiology and Surgery. Dr. Glickman is a founder of Delcath.

William N. Hait, M.D., Ph.D. was educated at the University of Pennsylvania (B.A.) and The Medical College of Pennsylvania (M.D., Ph.D.). He was a resident in internal medicine and held numerous academic and professional appointments at Yale University School of Medicine, including Chief of Medical Oncology. Dr. Hait is currently director of The Cancer Institute of New Jersey. Dr. Hait is a founder of Delcath.

T. S. Ravikumar, M.D. was educated in India at Madras University and Madras Medical College. He is currently the Chairman of the Department of Surgery at Montefiore Medical Center. He was the associate director of

The Cancer Institute of New Jersey from 1993 through 1998. He also served as a resident in general surgery at Maimonides Medical Center at S.U.N.Y. -- Downstate and was a fellow in surgical oncology at the University of Minnesota. Dr. Ravikumar won a National Reserve Service Award in surgical oncology and served as a fellow at Brigham and Women's Hospital and the Dana Farber Cancer Institute from 1982 through 1984. He has had a number of academic appointments, including at Harvard Medical School, Yale University School of Medicine, and hospital appointments, including at Yale Comprehensive Cancer Center and Robert Wood Johnson University Hospital.

In addition, Delcath uses the services of the following medical and scientific consultants for technical expertise:

Name ----	Title -----	Specialty -----
Harvey J. Ellis, C.C.P.	Chief of Cardiac Perfusion, Bridgeport Hospital	Perfusion Consultant
Seymour H. Fein, M.D.	President, Fein & Associates	Regulatory and Medical Oncology
Durmus Koch	President, Bipore, Inc.	Manufacturing
James H. Muchmore, M.D.	Associate Professor of Surgery, Tulane University School of Medicine	Oncology and Perfusion Consultant
John Quiring, Ph.D.	Principal, QST Consulting	Biostatistician

#### OTHER KEY CONSULTANTS

Jonathan A. Foltz, CFA, 40, consults with us on identifying alternative product sources and potential partnering opportunities. He was our Director of Operations from 1992 until August 2001. Mr. Foltz was senior associate of Venkol Ventures from 1989 to 1992. During 1988 to 1989, he provided investment and acquisition research, consulting to corporations and brokerage firms including First Montauk Securities, Inc., Gilford Securities Inc., Texas American Energy Corporation and Computer Memories Inc. He was the research director of Nicholas, Lawrence and Co., a regional stock brokerage firm, reorganizing and managing their equity research department. Mr. Foltz earned a B.S. in finance and computer science from Lehigh University, an M.B.A. from the University of Connecticut and is a chartered financial analyst.

#### EXECUTIVE COMPENSATION

The following table sets forth, for the fiscal years ended December 31, 2002, 2001 and 2000, certain compensation paid by us, including salary, bonuses and certain other compensation, to our Chief Executive Officer and all other executive officers whose annual compensation for the year ended December 31, 2002, exceeded \$100,000.

Summary Compensation Table

Name and Principal Position -----	Year ----	Salary ----- (\$) ---	Bonus (\$) -----	Securities	All Other Compensation ----- (\$)
				Underlying Options (#) -----	
M.S. Koly					
President, Chief Executive Officer and Treasurer	2002	187,500	0	100,000	0
	2001	164,750	17,500 (1)	100,000	0
	2000	98,200	0	102,000	0
Samuel Herschkowitz					
Chairman of the Board and Chief Technical Officer	2002	136,667	0	30,000	0
	2001	120,000	10,000 (1)	30,000	0

Thomas S. Grogan Chief Financial Officer	2002	122,500	0	30,000	0
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(1) Bonuses were declared in 2001, payable in January 2002.

Equity Compensation Plan Information

	(a)	(b)	(c)
	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	885,684	\$2.94	631,858
Equity compensation plans not approved by security holders	0	0	0

OPTION GRANTS IN LAST FISCAL YEAR

The following table sets forth information concerning stock options which were granted during 2002 to the executive officers named in the Summary Compensation Table.

Name	Number of Shares of Common Stock	Percent of Total Options Granted		Expiration Date
	Underlying Option (1)	to Employees in 2002	Exercise Price (\$/Sh.)	
M. S. Koly	100,000	58.8%	0.71	September 2007
S. Herschkowitz	30,000	17.6%	0.71	September 2007
T. Grogan	30,000	17.6%	0.71	September 2007

(1) Options vest equally over two years on anniversary dates.

AGGREGATE OPTION EXERCISES IN LAST FISCAL YEAR AND FISCAL YEAR-END OPTION VALUES

The following table sets forth information with respect to the executive officers named in the Summary Compensation Table concerning the exercise of options during the year ended December 31, 2002 and unexercised options held as of the end of fiscal 2002.

Name	Year	Shares Received on Exercise	Value Realized	Number of Securities Underlying Unexercised Options at FY-End Exercisable/	Value of Unexercised In-the-Money Options at FY-End (\$) (1) Exercisable/
				Unexercisable	Unexercisable

M. S. Koly	2002	0	0	291,746/150,000	52,500/146,500
S. Herschkowitz	2002	0	0	159,836/45,000	12,000/40,200
T. Grogan	2002	0	0	6,000/54,000	4,800/47,400

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- (1) Calculated based on the fair market value of \$1.65 per share at the close of trading on December 31, 2002 as reported by The Wall Street Journal, minus the exercise price of the option.

#### EMPLOYMENT AGREEMENTS

On October 30, 2001 we amended the employee agreements dated April 30, 1996, with M. S. Koly and Samuel Herschkowitz, M.D. The agreement provides for a lump-sum severance payment of one year's base salary upon notice of termination at any time without cause. In the event of termination without cause due to a change in control (as defined in the employment agreement), Mr. Koly is entitled to a lump sum severance payment equal to the greater of two years' base salary or the base salary due for the remaining term of the agreement. Mr. Koly's amended employment agreement provides for a base salary of \$225,000 per annum and extends the term of the agreement until December 1, 2004. The amendment also provides that in the event we close on a private placement or public offering with gross proceeds of at least \$5,000,000, a new three-year term of employment shall commence upon the closing.

The initial term of Dr. Herschowitz's employment agreement was three years with automatic successive one year renewal periods thereafter. In addition to the termination provisions set forth in the employment agreement, either party may terminate the employment agreement by providing a minimum of three months' prior written notice. The agreement provides for a lump-sum severance payment of one year's base salary upon notice of termination at any time without cause. In the event of termination without cause due to a change in control (as defined in the employment agreement), Dr. Herschowitz is entitled to a lump sum severance payment equal to the greater of one year's base salary or the base salary due for the remaining term of the agreement. Dr. Herschkowitz's amendment provides for a base salary of \$140,000 per annum.

#### STOCK OPTION PLANS

On October 15, 1992, our board of directors and stockholders adopted our 1992 Incentive Stock Option Plan and our 1992 Non-Incentive Stock Option Plan. On June 15, 2000, the board of directors adopted our 2000 Stock Option Plan (the "2000 Plan"). On May 8, 2001, the board of directors adopted the 2001 Stock Option Plan (the "2001 Plan"). The 2000 Plan and the 2001 Plan were each approved by the shareholders at the Annual Meeting of Shareholders held on June 12, 2001. On November 13, 2001, our board of directors authorized the amendment of the 2001 Plan to give the compensation and stock option committee discretion to issue stock options with net issuance provisions. We have reserved 236,359 shares of common stock for issuance upon exercise of options granted from time to time under the 1992 Incentive Stock Option Plan, 207,030 shares of common stock for issuance upon exercise of options granted from time to time under the 1992 Non-Incentive Stock Option Plan; 300,000 shares of common stock for issuance from time to time under the 2000 Plan and 750,000 shares of common stock for issuance from time to time under the 2001 Plan. The stock option plans are intended to assist us in securing and retaining key employees, directors and consultants by allowing them to participate in our ownership and growth through the grant of incentive and non-qualified options.

Under the 1992 Incentive Stock Option Plan we may grant incentive stock options only to employees. Under the 1992 Non-Incentive Stock Option Plan, we may grant non-qualified options to our employees, officers, directors, consultants, agents and independent contractors. Under the 2000 Plan and the 2001 Plan, we may grant incentive options to employees, and non-qualified options to employees and non-employees including directors, consultants, agents and independent contractors. The stock option plans are administered by the compensation and stock option committee, appointed by our board of directors.

Subject to the provisions of each of the stock option plans, the compensation and stock option committee will determine who will receive options, the number of shares of common stock that may be purchased under the options, the time and manner of exercise of options and exercise prices. The term of options granted under each of the stock option plans may not exceed ten years, or five years for an incentive stock option granted to an optionee owning more than 10% of our voting stock. The exercise price for incentive stock options shall be equal to or greater than 100% of the fair



market value of the shares of the common stock at the time granted; provided that incentive stock options granted to an optionee owning more than 10% of our voting stock shall be exercisable at a price equal to or greater than 110% of the fair market value of the common stock on the date of the grant. The exercise price for non-qualified options will be set by the committee, in its discretion, but in no event shall the exercise price be less than the fair market value of the shares of common stock on the date of grant.

As of December 31, 2002, we have granted incentive stock options to purchase 236,359 shares of common stock under our 1992 Incentive Stock Option Plan at a weighted average price of \$4.02 and non-incentive stock options to purchase 205,305 shares of common stock under our 1992 Non-Incentive Stock Option Plan at a weighted average price of \$4.26. All of these options were granted to employees and directors and terminate on the fifth anniversary of their grant date. We will not grant any additional options under these plans. As of December 31, 2002, we have granted incentive stock options to purchase 150,600 shares of common stock under our 2000 Plan at a weighted average price of \$2.96 and non-qualified stock options to purchase 133,420 shares, net of 84,000 expired options, of common stock under our 2000 Plan at a weighted average price of \$1.65. As of December 31, 2002, we have granted incentive stock options to purchase 330,000 shares of common stock under our 2001 Plan at a weighted average price of \$0.70 and we have granted non-qualified stock options to purchase 90,000 shares of common stock under our 2001 Plan at a price of \$0.71.

#### PRINCIPAL STOCKHOLDERS

The following table sets forth certain information known by us regarding the beneficial ownership of our common stock as of February 28, 2003, for (i) each stockholder known by us to own beneficially 5% or more of the outstanding shares of our common stock, (ii) each executive officer and director and (iii) all directors and executive officers as a group.

The address for each listed director and officer is c/o Delcath Systems, Inc., 1100 Summer Street, Stamford, Connecticut 06905.

Directors, Executive Officers and 5% Stockholders: (1) -----	Shares Beneficially Owned (2) -----	Percentage of Common Shares Outstanding (3) -----
M. S. Koly (4)	1,627,848	36.9%
Venkol Trust (5)	1,245,864	30.2%
Samuel Herschkowitz, M.D. (6)	178,074	4.2%
Yenom X Partners (7)	263,446	6.4%
Mark A. Corigliano (8)	28,000	*
Daniel Isdaner (9)	30,500	*
Victor Nevins (10)	37,100	*
Thomas S. Grogan (11)	6,000	*
All directors and executive officers as a group (6 persons) (12)	1,907,522	41.2%

\* Less than 1% of total voting securities

(1) Except as otherwise noted in the footnotes to this table, each person or entity named in the table has sole voting and investment power with respect to all shares owned, based on the information provided to us by the persons or entities named in the table.

(2) Shares of common stock subject to options or warrants exercisable within 60 days of February 28, 2003 are deemed outstanding for computing the percentage of the person or entity holding such options or warrants.

(3) Percentage of beneficial ownership is calculated on the basis of the amount of outstanding securities (common stock) at February 28, 2003 (4,118,897 common shares) plus, for each person or entity, any securities that the person or entity has the right to acquire within 60 days pursuant to stock options or other rights.

(4) Mr. Koly is a director of Delcath. Includes 78,507 shares held by Mr. Koly, 11,731 shares held by M. Ted Koly, Mr. Koly's minor son and approximately 181,000 shares held by the Venkol Trust in which Mr. Koly has a pecuniary interest. The figure above also includes the vested portion (291,746 shares) of stock options to purchase shares of common stock.

(5) Mr. Koly is the trustee of Venkol Trust and is deemed the beneficial owner of its shares.

(6) Dr. Herschkowitz is the Chairman of the board of directors of Delcath. The figure above includes 18,238 shares held by Dr. Herschkowitz. The figure excludes approximately 181,000 shares held by Venkol Trust. The figure also includes the vested portion (159,836 shares) of an stock options to purchase shares of common stock.

(7) The figure above represents 243,181 shares owned directly by Yenom X Partners and 20,265 shares which could be acquired within 60 days upon exercise of warrants.

(8) Mr. Corigliano is a director of Delcath. The figure above represents 11,500 shares owned directly by him and 1,500 shares issuable upon exercise of warrants. The figure above also includes the vested portion (15,000 shares) of stock options to purchase shares of common stock.

(9) Mr. Isdamer is a director of Delcath. The figure above represents 8,000 shares directly owned by him or jointly with his wife and 7,500 shares issuable upon exercise of warrants. The figure above also includes the vested portion (15,000 shares) of stock options to purchase shares of common stock.

(10) Mr. Nevins is a director of Delcath. The figure above represents 16,100 shares owned directly by him and 4,000 shares issuable upon exercise of warrants. The above figure also represents 1,000 shares owned directly by his wife and 1,000 shares issuable upon the exercise of warrants. The figure above also includes the vested portion (15,000 shares) of stock options to purchase shares of common stock.

(11) Mr. Grogan is the Chief Financial Officer of Delcath. The figure above represents the vested portion of stock options to purchase shares of common stock.

(12) The number of shares beneficially owned by all directors and executive officers as a group includes 502,582 shares of common stock issuable within 60 days of February 28, 2003 upon exercise of certain stock options granted to directors and executive officers pursuant to our various stock option plans and 14,000 shares of common stock issuable upon exercise of warrants.

#### RELATED PARTY TRANSACTIONS

In August and September 2000, Delcath borrowed an aggregate of \$230,000 for which it issued promissory notes due on May 27, 2001. The promissory notes bore interest at an annual rate of 22%. Of these loans, \$205,000 was borrowed from existing stockholders or relatives of existing stockholders of Delcath. M.S. Koly, Chief Executive Officer, President and a director of Delcath, and Mary Herschkowitz, the mother of Samuel Herschkowitz, M.D., Chairman and Chief Technical Officer of Delcath, provided \$50,000 and \$40,000 of the loans, respectively. Each of the promissory notes was timely re-paid.

We believe that each of the transactions with our officers, directors and principal stockholders and their affiliates were on terms no less favorable than could have been obtained from unaffiliated third parties. All future transactions, including loans that may legally be made between us and our officers, directors and stockholders beneficially owning 5% or more of our outstanding voting securities, or their affiliates, will be on terms no less favorable to us than could be obtained in arm's length transactions from unaffiliated third parties. Further, all transactions and loans that may legally be made and any forgiveness of indebtedness owed by any of our officers, directors and stockholders beneficially owning 5% or more of our outstanding voting securities, or their affiliates, to us, must be approved by a majority of our independent directors who do not have an interest in the transactions and who have access, at our expense, to either our legal counsel or independent legal counsel.

#### DESCRIPTION OF OUR CAPITAL STOCK AND OTHER SECURITIES

Our authorized capital stock consists of 35,000,000 shares of common stock, \$.01 par value per share and 10,000,000 shares of preferred stock, \$.01 par value per share, whose rights and designation have not yet been established. The description in the sections below of our certificate of incorporation and by-laws refers to our Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws, respectively.

#### UNITS

Each unit offered consists of five shares of common stock and five warrants each to purchase one share of common stock. The common stock and the 0003 Warrants will trade separately immediately following the sale of the units. Immediately prior to the closing of this offering, there will be shares of common stock outstanding. After giving effect to the issuance of the shares of common stock included in the units offered by this prospectus, assuming the underwriters do not exercise their over-allotment option, there will be shares of common stock outstanding upon the closing of this offering.

Holders of common stock are entitled to one vote for each share on all matters submitted to a stockholder vote. Holders of common stock do not have cumulative voting rights. Therefore, holders of a majority of the shares of common stock voting for the election of directors can elect all of the directors. Holders of common stock are entitled to share in all dividends that the board of directors, in its discretion, declares from legally available funds. In any liquidation, dissolution or winding up of Delcath, each outstanding share entitles its holder to participate pro rata in all assets that remain after payment of liabilities and after providing for each class of stock, if any, having preference over the common stock.

Holders of common stock have no conversion, preemptive or other subscription rights and there are no redemption provisions applicable to the common stock. The rights of the holders of common stock are subject to any rights that may be fixed for holders of preferred stock, when and if any preferred stock is issued. All outstanding shares of common stock are, and the shares underlying all options and warrants will be, duly authorized, validly issued, fully paid and non-assessable upon our issuance of these shares.

#### WARRANTS

##### 2003 Warrants

General. Each 2003 Warrant will entitle the holder of the 2003 Warrant to purchase one share of common stock at a price of per share, subject to adjustment, at any time up to five years from the date of closing of this offering.

The 2003 Warrants will be issued in registered form under a warrant agreement by and among Delcath, American Stock Transfer & Trust Company, as warrant agent, and the underwriters. Reference is made to the warrant agreement, which has been filed as an exhibit to the registration statement in which this prospectus is included, for a complete description of the terms and conditions thereof.

Redemption. We may redeem some or all of the 2003 Warrants at a price of \$0.01 per warrant, upon thirty days' notice, at any time commencing one year from the closing date of this offering provided that the average closing bid quotation of our common stock on all twenty trading days ending on the day on which we give notice has been at least 200% of the initial unit offering price and there is then an effective registration statement providing for the issuance of the underlying shares of common stock. The warrant holders shall have the right to exercise their 2003 Warrants until the close of business on the date fixed for redemption. Redemption of the 2003 Warrants could force the holders to exercise the warrants and pay the exercise price at a time when it may be disadvantageous for the holders to do so, to sell the warrants at the then current market price when they might otherwise wish to hold the warrants or to accept the redemption price, which is likely to be substantially less than the market value of the warrants at the time of redemption.

Exercise. The 2003 Warrants included in the units offered hereby may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price to the warrant agent for the number of warrants being exercised. The warrant holders do not have the rights or privileges of holders of common stock.

No 2003 Warrants will be exercisable unless, at the time of exercise, Delcath has an effective registration statement under the Securities Act covering the shares of common stock issuable upon exercise of the 2003 Warrants and the shares have been registered or qualified or deemed to be exempt from registration or qualification under the securities laws of the state of residence of the holder of the warrant. We will use our best efforts to have all the shares so registered or qualified on or before the exercise date and to maintain a current prospectus relating thereto until the expiration of the warrants, subject to the terms of the warrant agreement. We may not, however, be able to have a prospectus in effect when this prospectus is no longer current.

No fractional shares will be issued upon exercise of the 2003 Warrants. However, if a warrant holder exercises all 2003 Warrants then owned of record by him or her, we will pay to the warrant holder, in lieu of the issuance of any fractional share which is otherwise issuable, an amount in cash based on the market value of the common stock on the last trading day prior to the exercise date.

Adjustment of Exercise Price. The exercise price and number of shares of common stock or other securities issuable on exercise of the 2003 Warrants included in the units offered hereby are subject to adjustment in specified circumstances, including in the event of a stock dividend, recapitalization, reorganization, merger or consolidation of Delcath. However, the 2003 Warrants are not subject to adjustment for issuances of common stock at prices below the exercise price of the 2003 Warrants.

#### 2000 Warrants

In accordance with the terms of our initial public offering, effective October 22, 2001, our common stock and 2000 Warrants that constituted the units we sold in 2000 commenced separate trading. A description of the material terms of the 2000 Warrants is set forth below.

General. Each 2000 Warrant entitles the holder of the warrant to purchase one share of common stock at a price of \$6.60, subject to adjustment, until October 2005.

The 2000 Warrants were issued in registered form under a warrant agreement by and among Delcath, American Stock Transfer & Trust Company, as warrant agent, and Whale Securities Co., L.P., the underwriter.

Redemption. We may redeem some or all of the 2000 Warrants at a price of \$.10 per warrant, upon thirty days' notice, at any time, provided that the closing bid quotation of our common stock on all twenty trading days ending on the third day prior to the day on which we give notice has been at least 150% of the then effective exercise price of the 2000 Warrants and we have received the written consent of the underwriter for the redemption. The warrant holders shall have the right to exercise their 2000 Warrants until the close of business on the date fixed for redemption. Redemption of the 2000 Warrants could force the holders to exercise the warrants and pay the exercise price at a time when it may be disadvantageous for the holders to do so, to sell the warrants at the then current market price when they might otherwise wish to hold the warrants or to accept the redemption price, which is likely to be substantially less than the market value of the warrants at the time of redemption.

Exercise. The 2000 Warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price to the warrant agent for the number of warrants being exercised. The warrant holders do not have the rights or privileges of holders of common stock.

No 2000 Warrant will be exercisable unless, at the time of exercise, we have an effective registration statement under the Securities Act covering the shares of common stock issuable upon exercise of the warrant and the shares have been registered or qualified or deemed to be exempt from registration or qualification under the securities laws of the state of residence of the holder of the warrant. We will use our best efforts to have all the shares so registered or qualified on or before the exercise date and to maintain a current prospectus relating thereto until the expiration of the 2000 Warrants, subject to the terms of the warrant agreement.

No fractional shares will be issued upon exercise of the 2000 Warrants. However, if a warrant holder exercises all 2000 Warrants then owned of record by him or her, we will pay to the warrant holder, in lieu of the issuance of any fractional share which is otherwise issuable, an amount in cash based on the closing price or last reported sale price of the common stock on the last trading day prior to the exercise date.

Adjustment of Exercise Price. The exercise price and number of shares of common stock or other securities issuable on exercise of the 2000 Warrants are subject to adjustment in specified circumstances, including in the event of a stock dividend, recapitalization, reorganization, merger or consolidation of Delcath. However, the 2000 Warrants are not subject to adjustment for issuances of common stock at prices below the exercise price of the 2000 Warrants.

#### PREFERRED STOCK

Under our certificate of incorporation, our board of directors is authorized, subject to limitations prescribed by law, without further stockholder approval, from time to time to issue up to an aggregate of 10,000,000 shares of preferred stock. The preferred stock may be issued in one or more series. Each series may have different rights, preferences and designations and qualifications, limitations and restrictions that may be established by our board of directors without approval from the stockholders. These rights, designations and preferences may include:

- o the number of shares to be issued;
- o dividend rights;
- o the right to convert the preferred stock into a different type of security;
- o voting rights, if any, attributable to the preferred stock;
- o the obligation to set aside assets for payments relating to the preferred stock; and
- o amounts to be paid upon redemption of the preferred stock or a liquidation or bankruptcy type event.

If our board of directors decides to issue any preferred stock, that issuance could have the effect of delaying or preventing a third-party from taking control of us. This is because the terms of the preferred stock could be designed to make it prohibitively expensive for any unwanted third party to make a bid for our shares. In addition, the issuance of preferred stock with voting or conversion rights could adversely affect the voting power or other rights of the holders of our common stock. We have no present plans to issue any shares of preferred stock.

#### ANTI-TAKEOVER EFFECTS OF DELAWARE LAW AND OUR AMENDED AND RESTATED CERTIFICATE OF INCORPORATION AND BY-LAWS

We are subject to the provisions of Section 203 of the Delaware General Corporation Law. That section provides, with exceptions, that a Delaware corporation may not engage in any of a broad range of business combinations with a person or that person's affiliate or associate who is an owner of 15% or more of our outstanding voting stock for a period of three years from the date that this person became an interested stockholder unless (a) prior to such time our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder or (b) upon consummation of the transaction which resulted in the stockholder

becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced or (c) at or subsequent to such time the business combination is approved by our board of directors and authorized at an annual or special meeting of stockholders by the affirmative vote of at least 66 2/3% of the outstanding voting stock not owned by the interested stockholder.

Our board of directors is divided into three classes of directors serving staggered three-year terms. As a result, approximately one-third of the board of directors will be elected each year. These provisions, when coupled with the provisions of our amended and restated certificate of incorporation authorizing the board of directors to fill vacant directorships or increase the size of the board of directors, may deter a stockholder from removing incumbent directors and simultaneously gaining control of the board of directors by filling the vacancies created by that removal with its own nominees.

#### LIMITATION ON LIABILITY AND INDEMNIFICATION MATTERS

As authorized by the Delaware General Corporation Law, our certificate of incorporation provides that none of our directors will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- o any breach of the director's duty of loyalty to Delcath or its stockholders;
- o acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- o unlawful payments of dividends or unlawful stock redemptions or repurchases; or
- o any transaction from which the director derives an improper personal benefit.

This provision limits our rights and the rights of our stockholders to recover monetary damages against a director for breach of the fiduciary duty except in the situations described above. This provision does not limit our rights or the rights of any stockholder to seek injunctive relief or rescission if a director breaches his duty of care. In addition, our certificate of incorporation provides that if the Delaware General Corporation Law is amended to permit further limits on the liability of a director, then the liability of the directors shall be eliminated or limited to the fullest extent permitted by such amendment. These provisions do not alter the liability of directors under federal securities laws.

Our certificate of incorporation further provides for the indemnification of any and all persons who serve as a director, officer, employee or agent to the fullest extent permitted under the Delaware General Corporation Law.

We maintain a policy of insurance under which our directors and officers are insured, subject to the limits of the policy, against certain losses arising from claims made against our directors and officers by reason of any acts or omissions covered under this policy in their capacities as directors or officers, including liabilities under the Securities Act.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons under the above provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is unenforceable.

#### RIGHTS AGREEMENT

On October 30, 2001, we entered into a Rights Agreement with American Stock Transfer & Trust Company (the "Rights Agreement"). The purposes of the Rights Agreement are to deter and protect our shareholders from certain coercive and otherwise unfair takeover tactics and to enable the board of directors to represent effectively the interests of stockholders in the event of a takeover attempt. The Rights Agreement does not deter negotiated mergers or business combinations that the board of directors determines to be in the best interests of us and our stockholders.

To implement the Rights Agreement the board of directors declared a dividend of one common stock purchase right (a "Right") for each share of our common stock outstanding at the close of business on November 14, 2001 (the "Record Date") or issued by us on or after such date and prior to the earlier of the Distribution Date, the Redemption Date or the Final Expiration Date (as such terms are defined in the Rights Agreement). The dividend was issued on

November 14, 2001 to stockholders of record on the Record Date. Each Right entitles the registered holder to purchase from us one share of common stock at a price of \$5.00 per share, subject to adjustment (the "Purchase Price").

#### Rights Attached to Common Stock Initially

Common stock certificates will evidence the Rights. A notation on the certificates will incorporate the Rights Agreement and advise the certificate holder of the existence of the Rights. Until triggered, the Rights are transferred only with the common stock. Common stock certificates issued after November 14, 2001 contain a legend referencing the existence of the Rights Agreement. The transfer of outstanding common stock prior to the occurrence of a Distribution Date will also constitute the transfer of the Rights associated with the common stock.

#### Distribution of Rights

The Rights will separate from the common stock on the Distribution Date. The Distribution Date will be the date the Rights separate from the common stock and will be the earlier to occur of the following two events:

- o the close of business on the first day of a public announcement that a person or group of affiliated or associated persons (an "Acquiring Person") has acquired beneficial ownership of 15% or more of the outstanding common stock; or
- o ten business days following the commencement of, or announcement of an intention to make, a tender or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 15% or more of such outstanding common stock.

As soon as practicable following the Distribution Date, separate certificates evidencing the Rights ("Right Certificates") will be mailed to holders of record of the common stock as of the close of business on the Distribution Date and such separate Right Certificates alone will evidence the Rights. The Rights are not exercisable until the Distribution Date. The Rights will expire on October 30, 2011, unless earlier redeemed or extended by the board of directors.

#### Right to Purchase Company Stock

In the event a person becomes the owner of 15% or more of the outstanding shares of common stock and thus becomes an Acquiring Person (a "Flip-In Event"), the Rights not held by the Acquiring Person "flip-in" and, instead of continuing as rights to buy one share of common stock, become rights to buy from us shares of common stock having a value equal to two times the Purchase Price under the Right. In other words, a Rights holder (other than the Acquiring Person) may purchase common stock at a 50% discount.

In the event there is insufficient common stock to permit exercise in full of the Rights, we must issue cash, property or other securities of the Company with an aggregate value equal to twice the Purchase Price.

Upon the occurrence of any Flip-In Event, any Rights owned by an Acquiring Person, its affiliates and associates and certain transferees thereof shall become null and void.

#### Right to Purchase Acquiring Person Stock

In the event that a person becomes an Acquiring Person and the Company is then merged with the common stock being exchanged or converted in the merger, then each Right (other than those formerly held by the Acquiring Person, which became void) would "flip-over" and be exercisable for a number of shares of common stock of the acquiring company having a market value of two times the Purchase Price under the Right. In other words, a Rights holder may purchase the acquiring company's common stock at a 50% discount.

#### Exchange of Rights for Common Stock

After a Flip-In Event occurs but before a "flip-over" event (as described above) occurs and before an Acquiring Person becomes the owner of 50% or more of our common stock, the board of directors may cause the Rights (either in whole or in part) to be exchanged for shares of common stock (or equivalent securities of equal value) at a one-to-one

exchange ratio or pursuant to an equivalent cashless exercise method. Rights held by the Acquiring Person, however, which became void upon the Flip-In Event would not be entitled to participate in such exchange.

#### Redemption

The Rights may be redeemed by the Board at a redemption price of \$0.01 per Right at any time prior to the earlier of:

- o the time that a person or a group becomes an Acquiring Person, or
- o October 30, 2011, the expiration date of the Rights Agreement.

Immediately upon redemption and without further action and without any notice, the right to exercise the Rights will terminate and the only right of the holders will be to receive the redemption price.

#### Expiration of Rights

The Rights will expire on October 30, 2011, unless the expiration date is extended by amendment or unless the Rights are earlier redeemed or exchanged by us as described above.

#### Amendments or Supplements

For so long as the Rights are redeemable, the terms of the Rights may be amended or supplemented by the board of directors at any time and from time to time without the consent of the holders of the Rights. At any time when the Rights are not redeemable, the board of directors may amend or supplement the terms of the Rights, provided that such amendment does not adversely affect the interests of the holders of the Rights.

#### No Rights as Stockholders

Until a Right is exercised, the holder thereof will have no rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends.

#### Miscellaneous

In order to prevent dilution, the Purchase Price, the number of shares of common stock or other securities or property purchasable upon exercise of each Right and the number of Rights outstanding are subject to adjustment from time to time as provided in the Rights Agreement.

We are not required to issue fractions of Rights or to distribute Right Certificates which evidence fractional Rights (except as may be provided for in the Rights Agreement). In lieu of such fractional Rights, we will pay to the registered holders of the Right Certificates with respect to which such fractional Rights would otherwise be issuable, an amount of cash equal to the same fraction of the current market value of a whole Right.

#### Transfer Agent and Warrant Agent

The transfer agent for the units offered hereby, our common stock, the 2000 Warrants and the 2003 Warrants is American Stock Transfer & Trust Company.



SHARES ELIGIBLE FOR FUTURE SALE

After the closing of this offering, we will have \_\_\_\_\_ shares of common stock issued and outstanding of which the \_\_\_\_\_ shares included in the units offered by this prospectus will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by any affiliate of us. An affiliate of us is generally a person who has a controlling position with regard to us. Any shares purchased by our affiliates will be subject to the resale limitations of Rule 144 promulgated under the Securities Act.

Of the approximately \_\_\_\_\_ remaining shares of common stock that will be outstanding, \_\_\_\_\_ are restricted securities as that term is defined under Rule 144.

Approximately \_\_\_\_\_ of these shares are immediately eligible for public sale and the remaining \_\_\_\_\_ shares will become eligible for public resale, at various times, in accordance with Rule 144 under the Securities Act.

In general, under Rule 144, as currently in effect, a person or group of persons whose shares are aggregated, who has beneficially owned restricted shares for at least one year would be entitled to sell, within any three-month period, a number of shares that does not exceed the greater of:

- o 1% of the then outstanding common stock; or
- o the average weekly trading volume of our common stock during the four calendar weeks preceding the sale, provided, that public information about us as required by Rule 144 is available and the seller complies with manner of sale provisions and notice requirements.

The volume limitations described above, but not the one-year holding period, also apply to sales of our non-restricted securities by our affiliates.

A person who is not an affiliate, has not been an affiliate within three months before the sale and has beneficially owned the restricted securities for at least two years, is entitled to sell restricted shares under Rule 144 without regard to any of the limitations described above.

We cannot predict the effect, if any, that sales of, or the availability for sale of, our common stock will have on the market price of our common stock prevailing from time to time. Nevertheless, the possibility that substantial amounts of common stock in the public market, including shares issuable upon the exercise of outstanding warrants or options, could adversely affect the prevailing market price of our common stock and could impair our ability to raise capital in the future through the sale of securities.

UNDERWRITING

We and the underwriters for this offering have entered into an underwriting agreement with respect to the units being offered. Subject to certain conditions, each underwriter has severally agreed to purchase, and we have agreed to sell to them, severally, the respective number of units set forth opposite their names at the public offering price less the underwriting discounts and commission set forth on the cover page of this prospectus below. Roan/Meyers Associates L.P., is the representative of the underwriters.

Underwriters	Number of Units
Roan/Meyers Associates, L.P. ....	_____
ViewTrade Securities, Inc.	
Total.....	=====

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the units offered hereby are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the units offered by this prospectus if any

units are taken except for those covered by the overallotment option. These conditions include requirements that no stop order be in effect and that no proceedings for such purpose be instituted or threatened by the Securities and Exchange Commission.

The representative has informed us that the underwriters propose to offer the units directly to the public at the public offering price set forth on the cover page hereof and part to certain dealers at a price that represents a concession not in excess of \$ \_\_\_\_\_ per unit below the public offering price. Any underwriter may allow, and such dealers may re-allow, a concession not in excess of \$ \_\_\_\_\_ a unit to other dealers including the underwriters.

We have granted to the underwriters an option, exercisable for 45 days from the date of this prospectus, to purchase up to an aggregate of an additional 15% of the total units sold at the public offering price set forth on the cover page hereof, less underwriting discounts and commissions. The underwriters may exercise such option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the units offered hereby. To the extent such option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of such additional units as the number set forth next to such underwriter's name in the preceding table bears to the total number of units set forth next to the names of all underwriters in that table.

We have also agreed to issue to the representative a unit option agreement granting the representative the right to purchase up to 10% of the units sold (not including the possible exercise of the overallotment option) at an exercise price equal to 165% of the initial offering price of the units. The exercise price and the number of underlying securities in the warrants contained in the representative's units are subject to adjustment upon the same terms as contained in the 2003 Warrants being sold in the units. The sale price of the unit option is \$0.001 multiplied by the number of units covered by the option. The securities to be delivered upon exercise of the representative's warrants are the same as the units being sold to the public in this offering; provided, however, the exercise price of the representative's warrant received upon exercise of its unit option agreement is equal to 165% of the exercise price of the 2003 Warrants. These warrants are exercisable during the four-year period beginning one year from the date of effectiveness of the registration statement of which this prospectus forms a part. The representative's Unit Purchase Option will be restricted from sale, transfer, assignment or hypothecation for a period of one year from the effective date of the offering except to officers or partners (not directors) of the underwriter and members of the selling group and/or their officers or partners in compliance with NASD Rule 2710(c) (7) (A).

The representative's unit purchase option is not redeemable by us. In addition, we have agreed to certain "demand and piggyback" registration rights for the securities underlying the representative's unit purchase option. The holder of the representative's unit purchase option can demand, on one occasion, at anytime until five years from the effective date of the registration statement, that we register the shares and warrants for resale under the Securities Act. The "piggyback" registration provisions provide that we will include the underlying shares and 2003 Warrants in any registration statement filed by us during the five-year period commencing after the effective date with certain exceptions.

The holder of the representative's unit purchase option will have, in that capacity, no voting, dividend or other stockholder rights. Any profit realized by the representative on the sale of the securities issuable upon exercise of the representative's unit purchase option may be deemed to be additional underwriting compensation. The securities underlying the representative's unit purchase option are being registered in the registration statement. During the term of the representative's unit purchase option, the holders thereof are given the opportunity to profit from a rise in the market price of our common stock. We may find it more difficult to raise additional equity capital while the representative's unit purchase options are outstanding.

We have agreed, in connection with the exercise of the 2003 Warrants pursuant to solicitation following a notice of redemption from the Company, to pay to Roan/Meyers a fee of 5% of the exercise price for each 2003 Warrant exercised; provided, however, that Roan/Meyers will not be entitled to receive such compensation in connection with warrant exercise transactions in which (i) the market price of our common stock at the time of exercise is lower than the exercise price of the 2003 Warrants; (ii) the 2003 Warrants are held in any discretionary account; (iii) disclosure of compensation arrangements is not made, in addition to the disclosure provided in this prospectus, in documents provided to holders of the 2003 Warrants at the time of exercise; (iv) at the time of exercise, the holder of the 2003 Warrant that is electing to exercise has not confirmed in writing that Roan/Meyers solicited such exercise; or (v) the solicitation or exercise of the 2003 Warrants was in violation of Regulation M under the Securities and Exchange Act of 1934. In addition, unless granted an exemption by the Securities and Exchange Commission from Regulation M, Roan/Meyers

will be prohibited from engaging in any market making activities or solicited brokerage activities until the later termination of such solicitation activity or the termination by waiver or otherwise of any right Roan/Meyers may have to receive a fee for the exercise of the 2003 Warrants following such solicitation. Such a prohibition, while in effect, could impair the liquidity and market price of the securities offered pursuant to this offering.

We have also previously paid to Roan/Meyers \$45,000 on account of the underwriters expenses in connection with this offering to be applied to the non-accountable expense allowance equal to 3% of the gross proceeds of the offering (including proceeds from the sale, if any, of the over-allotment option securities).

#### REGULATION M

In order to facilitate the offering of the units, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the units. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of units available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing units in the open market. In determining the source of units to close out a covered short sale, the underwriters will consider, among other things, the open market price of the units compared to the price available under the over-allotment option. The underwriters may also sell units in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing units in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the unit in the open market after pricing that could adversely affect investors who purchase in the offering. As an additional means of facilitating the offering, the underwriters may bid for, and purchase, units in the open market to stabilize the price of the units. The underwriting syndicate may also reclaim selling concessions allowed to an underwriter or a dealer for distributing the units in the offering, if the syndicate repurchases previously distributed units to cover syndicate short positions or to stabilize the price of the unit (commonly referred to as the imposition of "penalty bids"). These activities may raise or maintain the market price of the units offered hereby above independent market levels or prevent or retard a decline in the market price of the units offered hereby. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

#### DETERMINATION OF OFFERING PRICE

The initial public offering price of the units offered by this prospectus and the exercise price of the 2003 Warrants were determined by negotiation between us and the representatives. Among the factors considered in determining the initial public offering price of the units and the exercise price of the warrants were:

- o our history and our prospects;
- o the trading price of our common stock prior to the date of this prospectus;
- o the industry in which we operate;
- o the status and development prospects for our proposed products;
- o our past and present operating results;
- o the previous experience of our executive officers; and
- o the general condition of the securities markets at the time of this offering.

The offering price stated on the cover page of this prospectus should not be considered an indication of the actual value of the units. The price of our common stock and the 2003 Warrants is subject to change as a result of market conditions and other factors, and the market value of \_\_\_\_\_ shares of our common stock and \_\_\_\_\_ 2003 Warrants may be less than the initial public offering price of a unit offered hereby.

#### CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS AND FINANCIAL DISCLOSURE

On April 12, 2002, KPMG LLP resigned as our independent auditors. The report of KPMG on our balance sheet as of December 31, 2001 and the related statements of operations, stockholders' equity and cash flows for each of the years in the two-year period ended December 31, 2001 and for the period from August 5, 1988 (inception) to December 31, 2001 did not contain any adverse opinion or disclaimer of opinion, nor were they modified as to uncertainty, audit scope or accounting principles.

In connection with the audits of the periods described above, and the subsequent interim period through April 12, 2002, there were no disagreements between us and KPMG on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to KPMG's satisfaction, would have caused KPMG to make reference to the subject matter of the disagreement(s) in connection with its reports.

On April 25, 2002, we engaged Eisner LLP, formerly Richard A. Eisner & Company, LLP, New York, New York, as our independent auditors.

#### LEGAL MATTERS

The validity of the units, the common stock and the 2003 Warrants offered hereby will be passed upon for Delcath by Cummings & Lockwood LLC, Stamford, Connecticut, counsel for Delcath. Goldstein & DiGioia LLP, New York, New York, has served as counsel for the underwriters.

#### EXPERTS

Our financial statements as of December 31, 2002 and for each of the two years then ended and cumulative from inception (August 5, 1988) to December 31, 2002 have been included in this prospectus in reliance upon the report of Eisner LLP, independent auditors, appearing elsewhere herein, and upon their authority as experts in accounting and auditing.

#### WHERE YOU CAN FIND MORE INFORMATION

We file periodic reports under the Securities Exchange Act of 1934, as amended, that include information about us. We have also filed with the SEC in Washington, D.C., a registration statement under the Securities Act with the respect to the units offered by this prospectus. This prospectus does not contain all the information set forth in the registration statement and the exhibits and schedules thereto. For further information with respect to us and the units, we refer you to the registration statement and the exhibits and schedules filed therewith. The registration statement and the exhibits and schedules forming a part thereof may be inspected without charge at the public reference facilities maintained by the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549 and copies of such materials can be obtained from the Public Reference Section of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549, at prescribed rates. Please call the SEC at 1-800-SEC-0330 for further information regarding the public reference facilities. In addition, the SEC maintains a website that contains reports, proxy and information statements and other information regarding registrants that file electronically with the SEC at <http://www.sec.gov>.

Statements made in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete. With respect to each such contract, agreement or other document filed as an exhibit to the registration statement, we refer you to the exhibit to the registration statement referencing the item for a more complete description of the matter involved, and each such statement is qualified in its entirety by reference thereto.

DEL CATH SYSTEMS, INC.  
INDEX TO FINANCIAL STATEMENTS

Audited Financial Statements as of December 31, 2002 and for each of the two years in the period ended December 31, 2002, and cumulative from inception (August 5, 1988) to December 31, 2002:

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Independent Auditors' Report

The Board of Directors  
Delcath Systems, Inc.:

We have audited the accompanying balance sheet of Delcath Systems, Inc. (a development stage company) as of December 31, 2002, and the related statements of operations, stockholders' equity, and cash flows for each of the years in the two-year period ended December 31, 2002 and for the period from August 5, 1988 (inception) to December 31, 2002. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements enumerated above present fairly, in all material respects, the financial position of Delcath Systems, Inc. (a development stage company) as of December 31, 2002, and the results of its operations and its cash flows for each of the years in the two-year period ended December 31, 2002 and for the period from August 5, 1988 (inception) to December 31, 2002, in conformity with accounting principles generally accepted in the United States of America.

Eisner LLP

New York, NY  
February 6, 2003

DEL CATH SYSTEMS, INC.  
(A Development Stage Company)

Balance Sheet

December 31,  
2002

Assets

Current assets:

Cash and cash equivalents .....	\$ 1,063,650
Certificate of deposit .....	370,000
Interest receivable .....	5,406
Prepaid insurance .....	96,583

-----  
Total current assets ..... 1,535,639

Furniture and fixtures, net .....	13,750
Deferred costs in connection with a proposed financing transaction .....	238,571
Due from affiliate .....	24,000

-----  
Total assets ..... \$ 1,811,960  
=====

Liabilities and Stockholders' Equity

Current liabilities:

Accounts payable and accrued expenses .....	\$ 175,170
---	------------

-----  
Total current liabilities ..... 175,170  
-----

Stockholders' equity:

Preferred stock, \$.01 par value; 10,000,000 shares authorized; no shares issued and outstanding .....	--
Common stock, \$.01 par value; 15,000,000 shares authorized; 4,146,997 shares issued and 4,118,897 outstanding .....	41,189
Additional paid-in capital .....	19,049,406
Deficit accumulated during development stage .....	(17,453,805)

-----  
Total stockholders' equity ..... 1,636,790  
-----

Total liabilities and stockholders' equity ..... \$ 1,811,960  
=====

See accompanying notes to financial statements

DELCATH SYSTEMS, INC.  
(A Development Stage Company)

Statements of Operations

	Year ended	December 31,	Cumulative
	2001	2002	from inception (August 5, 1988) to December 31, 2002
Costs and expenses:			
General and administrative expenses .....	\$ 953,652	\$ 723,763	\$ 5,303,309
Research and development costs .....	1,115,004	1,173,275	11,410,881
	-----	-----	-----
Total costs and expenses .....	2,068,656	1,897,038	16,714,190
	-----	-----	-----
Operating loss .....	(2,068,656)	(1,897,038)	(16,714,190)
Other income (expense):			
Interest income .....	208,220	89,992	930,463
Interest expense .....	(15,571)	--	(171,473)
	-----	-----	-----
Net loss .....	\$ (1,876,007)	\$ (1,807,046)	\$ (15,955,200)
	=====	=====	=====
Common share data:			
Basic and diluted loss per share .....	\$ (0.48)	\$ (0.44)	
	=====	=====	
Weighted average number of basic and diluted common shares outstanding .....	3,903,816	4,085,049	
	=====	=====	

See accompanying notes to financial statements.



DEL CATH SYSTEMS, INC.  
(A Development Stage Company)

Statements of Stockholders' Equity

Years ended December 31, 2002 and 2001 and  
cumulative from inception (August 5, 1988) to December 31, 2002

	Common stock \$.01 par value						Preferred Stock	
	Issued		In treasury		Outstanding		\$.01 par value	
	No. of shares	Amount	No. of shares	Amount	No. of shares	Amount	No. of shares	Amount
Shares issued in connection with the formation of the Company as of August 22, 1988 .....	621,089	\$ 6,211	--	\$ --	621,089	\$ 6,211	--	\$ --
Sale of preferred stock, August 22, 1988 .....	--	--	--	--	--	--	--	--
Shares returned as of March 8, 1990 .....	--	--	(414,059)	(4,141)	(414,059)	(4,141)	--	--
Sale of stock, October 2, 1990 .....	--	--	17,252	173	17,252	173	--	--
Sale of stock, January 23, 1991 .....	--	--	46,522	465	46,522	465	--	--
Sale of stock, August 30, 1991 .....	--	--	1,353	14	1,353	14	--	--
Sale of stock, December 31, 1992 .....	--	--	103,515	1,035	103,515	1,035	--	--
Sale of stock, July 15, 1994 .....	--	--	103,239	1,032	103,239	1,032	--	--
Sale of stock, December 19, 1996 .....	--	--	39,512	395	39,512	395	--	--
Shares issued in connection with conversion of short-term borrowings as of December 22, 1996 .....	58,491	585	98,388	984	156,879	1,569	--	--
Sale of stock, December 31, 1997 .....	53,483	535	--	--	53,483	535	--	--
Exercise of stock options .....	13,802	138	3,450	35	17,252	173	--	--
Shares issued as compensation .....	2,345	23	828	8	3,173	31	--	--
Amortization of compensatory stock options granted .....	--	--	--	--	--	--	--	--
Forfeiture of stock options .....	--	--	--	--	--	--	--	--
Shares issued in connection with exercise of warrants .....	21,568	216	--	--	21,568	216	--	--
Sale of stock, January 16, 1998 .....	34,505	345	--	--	34,505	345	--	--
Sale of stock, September 24, 1998 .....	3,450	35	--	--	3,450	35	--	--
Shares returned, April 17, 1998 .....	(3,450)	(35)	--	--	(3,450)	(35)	--	--
Amortization of compensatory stock options granted .....	--	--	--	--	--	--	--	--
Forfeiture of stock options .....	--	--	--	--	--	--	--	--
Exercise of stock options .....	8,626	86	--	--	8,626	86	--	--
Sale of stock, June 30, 1999 .....	46,987	470	--	--	46,987	470	--	--
Amortization of compensatory stock options granted .....	--	--	--	--	--	--	--	--
Forfeiture of stock options .....	--	--	--	--	--	--	--	--
Shares issued in connection with exercise of warrants .....	2,300	23	--	--	2,300	23	--	--
Sale of stock, April 14, 2000 .....	230,873	2,309	--	--	230,873	2,309	--	--
Dividends paid on preferred stock .....	690,910	6,909	--	--	690,910	6,909	--	--
Conversion of preferred stock .....	833,873	8,339	--	--	833,873	8,339	--	--
Sale of stock, October 19, 2000 .....	1,200,000	12,000	--	--	1,200,000	12,000	--	--
Shares issued as compensation for stock sale .....	85,000	850	--	--	85,000	850	--	--
Stock options issued as compensation .....	--	--	--	--	--	--	--	--
Deficit accumulated from inception to December 31, 2000 .....	--	--	--	--	--	--	--	--
Balance at December 31, 2000 .....	3,903,852	39,039	--	--	3,903,852	39,039	--	--
Sum of fractional common shares cancelled after year 2000 stock splits .....	(36)	(1)	--	--	(36)	(1)	--	--
Stock warrants issued as compensation .....	--	--	--	--	--	--	--	--
Net loss for year ended December 31, 2001 .....	--	--	--	--	--	--	--	--
Balance at December 31, 2001 .....	3,903,816	39,038	--	--	3,903,816	\$ 39,038	--	\$ --
Sale of stock on April 3, 2002 .....	243,181	2,432	--	--	243,181	2,432	--	--
Repurchases of stock, November and December 2002 .....	--	--	(28,100)	(281)	(28,100)	(281)	--	--
Net loss for year ended December 31, 2002 .....	--	--	--	--	--	--	--	--
Balance at December 31, 2002 .....	4,146,997	\$ 41,470	(28,100)	\$ (281)	4,118,897	\$ 41,189	--	\$ --

Class A  
preferred stock

Class B  
preferred stock

	\$.01 par value		\$.01 par value		Additional paid-in capital	Deficit accumulated during development stage	Total
	No. of shares	Amount	No. of shares	Amount			
Shares issued in connection with the formation of the Company as of August 22, 1988 .....	--	\$ --	--	\$ --	\$ (5,211)	\$ --	\$ 1,000
Sale of preferred stock, August 22, 1988 .....	2,000,000	20,000	--	--	480,000	--	500,000
Shares returned as of March 8, 1990 .....	--	--	--	--	4,141	--	--
Sale of stock, October 2, 1990 .....	--	--	--	--	24,827	--	25,000
Sale of stock, January 23, 1991 .....	--	--	416,675	4,167	1,401,690	--	1,406,322
Sale of stock, August 30, 1991 .....	--	--	--	--	9,987	--	10,001
Sale of stock, December 31, 1992 .....	--	--	--	--	1,013,969	--	1,015,004
Sale of stock, July 15, 1994 .....	--	--	--	--	1,120,968	--	1,122,000
Sale of stock, December 19, 1996 .....	--	--	--	--	999,605	--	1,000,000
Shares issued in connection with conversion of short-term borrowings as of December 22, 1996 .....	--	--	--	--	1,703,395	--	1,704,964
Sale of stock, December 31, 1997 .....	--	--	--	--	774,465	--	775,000
Exercise of stock options .....	--	--	--	--	30,827	--	31,000
Shares issued as compensation .....	--	--	--	--	34,454	--	34,485
Amortization of compensatory stock options granted .....	--	--	--	--	2,496,347	--	2,496,347
Forfeiture of stock options .....	--	--	--	--	(279,220)	--	(279,220)
Shares issued in connection with exercise of warrants .....	--	--	--	--	234,182	--	234,398
Sale of stock, January 16, 1998 .....	--	--	--	--	499,655	--	500,000
Sale of stock, September 24, 1998 .....	--	--	--	--	56,965	--	57,000
Shares returned, April 17, 1998 .....	--	--	--	--	(4,965)	--	(5,000)
Amortization of compensatory stock options granted .....	--	--	--	--	1,166,418	--	1,166,418
Forfeiture of stock options .....	--	--	--	--	(407,189)	--	(407,189)
Exercise of stock options .....	--	--	--	--	67,414	--	67,500
Sale of stock, June 30, 1999 .....	--	--	--	--	775,722	--	776,192
Amortization of compensatory stock options granted .....	--	--	--	--	98,186	--	98,186
Forfeiture of stock options .....	--	--	--	--	(554,371)	--	(554,371)
Shares issued in connection with exercise of warrants .....	--	--	--	--	24,975	--	24,998
Sale of stock, April 14, 2000 .....	--	--	--	--	499,516	--	501,825
Dividends paid on preferred stock .....	--	--	--	--	992,161	(1,498,605)	(499,535)
Conversion of preferred stock .....	(2,000,000)	(20,000)	(416,675)	(4,167)	15,828	--	--
Sale of stock, October 19, 2000 .....	--	--	--	--	5,359,468	--	5,371,468
Shares issued as compensation for stock sale .....	--	--	--	--	(850)	--	--
Stock options issued as compensation .....	--	--	--	--	3,800	--	3,800
Deficit accumulated from inception to December 31, 2000 .....	--	--	--	--	--	(12,272,147)	(12,272,147)
Balance at December 31, 2000 .....	--	--	--	--	18,637,159	(13,770,752)	4,905,446
Sum of fractional common shares cancelled after year 2000 stock splits .....	--	--	--	--	1	--	--
Stock warrants issued as compensation .....	--	--	--	--	198,000	--	198,000
Net loss for year ended December 31, 2001 .....	--	--	--	--	--	(1,876,007)	(1,876,007)
Balance at December 31, 2001 .....	--	\$ --	--	\$ --	\$ 18,835,160	\$(15,646,759)	\$ 3,227,439
Sale of stock on April 3, 2002 .....	--	--	--	--	265,068	--	267,500
Repurchases of stock, November and December 2002 .....	--	--	--	--	(50,822)	--	(51,103)
Net loss for year ended December 31, 2002 .....	--	--	--	--	--	(1,807,046)	(1,807,046)
Balance at December 31, 2002 .....	--	\$ --	--	\$ --	\$ 19,049,406	\$(17,433,805)	\$ 1,636,790

DELCATH SYSTEMS, INC.  
(A Development Stage Company)

Statements of Cash Flows

	Year ended December 31,		Cumulative from inception (August 5, 1988) to December 31, 2002
	2001	2002	
<b>Cash flows from operating activities:</b>			
Net loss .....	\$ (1,876,007)	\$ (1,807,046)	\$(15,955,200)
Adjustments to reconcile net loss to net cash used in operating activities:			
Stock option compensation expense .....	--	--	2,520,170
Stock and warrant compensation expense issued for consulting services .....	198,000	--	236,286
Depreciation expense .....	5,014	6,410	21,174
Amortization of organization costs .....	--	--	42,165
Changes in assets and liabilities:			
(Increase) decrease in prepaid expenses .....	(501)	(26,916)	(96,583)
Decrease (increase) in interest receivable ....	(20,920)	47,882	(5,406)
Due from affiliate .....	--	--	(24,000)
(Decrease) increase in accounts payable and accrued expenses .....	(622,835)	(910)	175,170
Net cash used in operating activities .....	(2,317,249)	(1,780,580)	(13,086,224)
<b>Cash flows from investing activities:</b>			
Purchase of furniture and fixtures .....	(13,260)	(6,664)	(34,924)
Purchase of short-term investments .....	(1,500,000)	(370,000)	(2,900,000)
Proceeds from maturities of short-term investments .....	--	1,500,000	2,530,000
Organization costs .....	--	--	(42,165)
Net cash provided by (used in) investing activities .....	(1,513,260)	1,123,336	(447,089)
<b>Cash flows from financing activities:</b>			
Deferred costs in connection with a proposed financing transaction .....	--	(238,571)	(238,571)
Net proceeds from sale of stock and exercise of stock options and warrants .....	--	267,500	13,681,208
Repurchases of outstanding common stock .....	--	(51,103)	(51,103)
Dividends paid .....	--	--	(499,535)
(Repayments of) proceeds from short-term borrowings	(230,000)	--	1,704,964
Net cash (used in) provided by financing activities .....	(230,000)	(22,174)	14,596,963
(Decrease) increase in cash and cash equivalents .....	(4,060,509)	(679,418)	1,063,650
Cash and cash equivalents at beginning of period .....	5,803,577	1,743,068	--
Cash and cash equivalents at end of period .....	\$ 1,743,068	\$ 1,063,650	\$ 1,063,650
Cash paid for interest .....	\$ 36,141	\$ --	\$ 171,473
<b>Supplemental non-cash activities:</b>			
Conversion of debt to common stock .....	\$ --	\$ --	\$ 1,704,964
Common stock issued for preferred stock dividends .	\$ --	\$ --	\$ 999,070
Conversion of preferred stock to common stock .....	\$ --	\$ --	\$ 24,167
Common stock issued as compensation for stock sale .....	\$ --	\$ --	\$ 510,000

See accompanying notes to financial statements

Delcath Systems, Inc.  
Notes to Audited Financial Statements

December 31, 2001 and 2002

(1) Description of Business and Summary of Significant Accounting Policies

(a) Description of Business

Delcath Systems, Inc. (the "Company") is a development stage company which was founded in 1988 for the purpose of developing and marketing a proprietary drug delivery system capable of introducing and removing high dose chemotherapy agents to a diseased organ system while greatly inhibiting their entry into the general circulation system. It is hoped that the procedure will result in a meaningful treatment for cancer. In November 1989, the Company was granted an IDE (Investigational Device Exemption) and an IND status (Investigational New Drug) for its product by the FDA (Food and Drug Administration). The Company is seeking to complete clinical trials in order to obtain FDA pre-marketing approval for the use of its delivery system using doxorubicin and melphalan, chemotherapeutic agents, to treat malignant melanoma that has spread to the liver.

(b) Basis of Financial Statement Presentation

The accounting and financial reporting policies of the Company conform to accounting principles generally accepted in the United States of America. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make assumptions and estimates that impact the amounts reported in those statements. Such assumptions and estimates are subject to change in the future as additional information becomes available or as circumstances are modified. Actual results could differ from these estimates.

(c) Furniture and Fixtures

Furniture and fixtures are recorded at cost and are being depreciated on a straight line basis over the estimated useful lives of the assets of five years. Accumulated depreciation amounted to \$21,074 at December 31, 2002.

(d) Income Taxes

The Company accounts for income taxes following the asset and liability method in accordance with Statement of Financial Accounting Standards (SFAS) No. 109, "Accounting for Income Taxes." Under such method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The Company's income tax returns are prepared on the cash basis of accounting. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years that the asset is expected to be recovered or the liability settled.

(e) Stock Option Plan

The Company has historically accounted for its employee stock option plans in accordance with the provisions of Accounting Principles Board ("APB") Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations. As such, compensation expense is recorded on the date of grant only if the current fair market value of the underlying stock exceeds the exercise price. Fair market values of the Company's Common Stock at the dates options

were granted, prior to the Company's stock becoming publicly traded, were based on third party sales of stock at or around the dates options were granted, or in the absence of such transactions, based on a determination by the board of directors based on current available information. Such cost is then recognized over the period the recipient is required to perform services to earn such compensation. If a stock option does not become vested because an employee fails to fulfill an obligation, the estimate of compensation expense recorded in previous periods is adjusted by decreasing compensation expense in the period of forfeiture.

In 1996, the Company adopted Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," which permits entities to recognize as expense over the vesting period the fair value of all stock-based awards on the date of grant. Alternatively, SFAS No. 123 also allows entities to continue to apply the provisions of APB Opinion No. 25 and provide pro forma net income (loss) and pro forma earnings (loss) per share disclosures for employee stock option grants as if the fair-value-based method defined in SFAS No. 123 had been applied. The Company has elected to continue to apply the provisions of APB Opinion No. 25 and provide the pro forma disclosure provisions of SFAS No. 123.

Had compensation cost for the Company's stock option grants been determined based on the fair value at the grant dates consistent with the methodology of SFAS No. 123, the Company's net loss and net loss per share for the years ended December 31, 2001 and 2002 would have been increased to the pro forma amounts indicated as follows:

	2001 ----	2002 ----
Net loss	\$ (1,876,007)	\$ (1,807,046)
Stock-based employee compensation expense included in net loss, net of related tax effects	0	0
Stock-based employee compensation determined under the fair value based method, net of related tax effects	(133,263)	(44,769)
Pro forma net loss	(2,009,270)	(1,851,815)
Loss per share (basic and diluted):		
As reported	\$ (0.48)	\$ (0.44)
Pro forma	(0.51)	(0.45)

The per share weighted average fair value of stock options granted during 2001 and 2002 was \$.28 and \$.30, respectively, estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions used for the grants for 2001 and 2002, respectively: risk free interest rates of 2.84% and 3.6%-4.95% respectively, and volatility of 41% and 26.7% - 36.3%, respectively, while no dividend yield and expected lives of five years were assumed for both years.

(f) Loss Per Share

The Company follows the provisions of SFAS No. 128, "Earnings Per Share," which requires presentation of both basic and diluted earnings per share (EPS) on the face of the Statements of Operations. Basic EPS excludes dilution, and is computed using the weighted average number

of common shares outstanding during the period. The diluted EPS calculation assumes all dilutive stock options or contracts to issue Common Stock were exercised or converted into Common Stock at the beginning of the period.

For the years ended December 31, 2001 and 2002, the following potential common shares were excluded from the computation of diluted EPS because their effects would be antidilutive:

	2001 ----	2002 ----
Shares issuable upon exercise of options	902,936	1,145,684
Shares issuable upon exercise of warrants	1,626,938	1,516,985
Common Stock purchase rights issuable only in the event that a non-affiliated person or group acquires 15% of the Company's then outstanding Common Stock	6,408,690	6,781,566
Totals	8,938,564 =====	9,444,235 =====

(g) Research and Development Costs

Research and development costs include the costs of materials, personnel, outside services and applicable indirect costs incurred in development of the Company's proprietary drug delivery system. All such costs are charged to expenses when incurred.

(h) Statements of Cash Flows

For purposes of the statements of cash flows, the Company considers highly liquid debt instruments with maturities of three months or less at date of acquisition to be cash equivalents. At December 31, 2002 cash equivalents excluded a certificate of deposit in the amount of \$370,000.

(i) Reclassifications

Reclassifications have been made to reflect cost and expense accounts on a functional basis for 2001 and prior, which is consistent with the Company's current presentation.

Operating costs and expenses were previously presented as follows:

	Year ended December 31, 2001	Cumulative from inception (August 5, 1988) to December 31, 2001
	-----	-----
Legal, consulting and accounting fees	\$ 1,034,025	\$ 6,025,255
Stock option compensation expense ...	--	2,520,170
Compensation and related expenses ...	557,087	3,304,703
Other operating expenses .....	477,544	2,967,024
	-----	-----
Total costs and expenses .....	\$ 2,068,656	\$14,817,152
	=====	=====

(j) Stock Splits

All share and per share amounts give retroactive effect to stock splits effected by the Company.

(2) Stockholders' Equity

(a) Stock Issuances

BGH Medical Products, Inc. (name later changed to Delcath Systems, Inc.), a Delaware corporation (BGH - Delaware), was formed on August 5, 1988. As of August 22, 1988, BGH Medical Products, Inc., a Connecticut corporation (BGH - Conn.), was merged into BGH - Delaware, the surviving corporation. As of the merger date, the authorized capital stock of BGH - Conn. consisted of 5,000 shares of common stock, par value \$.01 per share, of which 1,000 shares were issued and outstanding. Upon the merger, each BGH - Conn. Common Share outstanding was exchanged into 621.089 BGH - Delaware Common Shares. As a result of the conversion, BGH - Delaware issued 621,089 shares of common stock at \$.01 par value. The aggregate amount of the par value of all Common Shares issued as a result of the exchange, \$6,211, was credited as the Common Stock capital of BGH - Delaware, and the difference in respect to the capital account deficiency was charged to additional paid-in capital.

On August 22, 1988, BGH - Delaware then sold in a private placement 2,000,000 shares of Class A Preferred Stock, with a par value of \$.01, to two affiliated venture capital funds for an aggregate amount of \$500,000 in cash.

On March 8, 1990, 414,059 shares of Common Stock were returned to the Company by certain stockholders as treasury stock due to relevant technology milestones not being fully achieved within the specified time period, in accordance with provisions of a stockholders' agreement.

Effective May 7, 1990, the Company changed its name to Delcath Systems, Inc.

On October 2, 1990, the Company sold 17,252 shares of Common Treasury Stock, \$.01 par value, for an aggregate amount of \$25,000.

On January 23, 1991, the Company offered in a private placement shares of Common Stock and/or Class B Preferred Stock at \$7.39 and \$2.55 per share respectively for an aggregate maximum amount of \$2,000,000. Under the terms of the private placement, 46,522 shares of Common Treasury Stock and 416,675 shares of Class B Preferred Stock were sold, yielding net proceeds to the Company of \$1,406,322. The Common Stock and Class B Preferred Stock sold each has a par value of \$.01, resulting in an increase in additional paid-in capital of \$1,401,690. The two affiliated venture capital funds that owned the Class A Preferred Shares purchased 117,650 of the Class B Preferred Shares sold in the private placement.

On August 30, 1991, the Company sold an additional 1,353 shares of Common Treasury Stock at \$7.39 per share, yielding proceeds to the Company of \$10,001. The shares have a par value of \$.01, resulting in an additional paid-in capital amount of \$9,987.

In a December 1992 private placement, the Company sold 103,515 shares of Common Stock held in our treasury at \$10.14 per share for a total placement of \$1,050,000 (\$1,015,004 after expenses). The shares issued have a par value of \$.01, resulting in an additional paid-in capital amount of \$1,048,965 (\$1,013,969 after expenses). The two affiliated venture capital funds that owned the Class A Preferred Shares purchased 27,604 of the Common Treasury Shares sold.

Effective January 1, 1994, the Company issued 1,725 shares of Common Treasury Stock at \$1.45 per share for a total price of \$2,500 upon the exercise of stock options by an employee of the Company.

During the first quarter of 1994, the Company increased its authorized number of Common Shares from 5,000,000 to 15,000,000.

On July 15, 1994, the Company sold through a private placement offering, units at a price of \$51,000 per unit. Each unit consisted of 4,693 Common Shares and 469 warrants, each of which entitled the holder to purchase one share of Common Stock for \$10.87. In connection therewith, the Company sold twenty-two (22) units (103,239 Common Shares and 10,324 warrants expiring August 30, 1997) for total proceeds of \$1,122,000. The two affiliated venture capital funds that owned the Class A Preferred Shares purchased six (6) of the units sold. During August 1997, the holders of warrants exercised 8,916 warrants to purchase 8,916 Common Shares at \$10.87 each for total proceeds of \$96,900. The remaining warrants expired unexercised.

Effective January 1, 1995, the Company issued 1,725 shares of Common Treasury Stock at \$1.45 per share for a total price of \$2,500 upon the exercise of stock options by an employee of the Company.

Effective January 1, 1996, the Company issued 828 shares of common stock, valued at \$10.87 per share for a total of \$9,000, as compensation for consulting services.

On December 19, 1996, the Company sold through a private transaction 39,512 shares of common stock for total proceeds of \$1,000,000. In connection with the offering, the purchaser obtained sole distribution rights for the Company's products in Japan, Korea, China, Taiwan, and Hong Kong through December 31, 2004. No value was attributed to the distribution rights. In addition, under certain conditions, the purchaser will be required to buy certain products from the Company.



On April 26, 1996, the Company entered into short-term borrowing agreements with 26 investors under which it borrowed \$1,704,964 bearing interest at 10.25% per annum. Under the terms of the agreements, on December 22, 1996, the short-term borrowings were converted into 156,879 shares of Common Stock, based on a conversion price of \$10.87 per share, and 78,438 warrants, expiring April 25, 1999, entitling the holders to purchase 78,438 additional shares of Common Stock at \$10.87 per share. The two affiliated venture capital funds discussed above provided \$250,000 of the short-term loan, converting that debt into approximately 23,003 shares of Common Stock and 11,502 warrants. From April 26, 1996 through December 22, 1996, interest of \$114,948 accrued on the borrowings. Such interest was paid in January 1997. During September 1997, the holders of warrants exercised 1,150 warrants to purchase 1,150 Common Shares at \$10.87 each for total proceeds of \$12,499. During December 1997, the two affiliated venture capital funds exercised their 11,502 warrants to purchase 11,502 Common Shares at \$10.87 each for total proceeds of \$124,999. During April 1999, the holders of warrants exercised 2,300 warrants to purchase 2,300 Common Shares at \$10.87 each for total proceeds of \$24,998. The remaining warrants expired unexercised.

In 1997, the Company issued 2,345 shares of Common Stock, valued at \$10.87 per share based on a 1996 agreement, for a total cost of \$25,485, as compensation for consulting services.

From September 1997 through December 31, 1997, the Company received \$775,000 and issued 53,483 shares of Common Stock. During January 1998, the Company received an additional \$500,000 and issued another 34,505 shares of Common Stock. In April 1998, under the terms of restricted stock sale agreements, the Company issued to the purchasers of the 87,988 shares of Common Stock 11,732 three-year warrants entitling the holders to purchase 11,732 Common Shares at \$10.87 per share. These warrants expired unexercised in April 2001.

In December 1997, the holder of non-incentive stock options exercised 13,802 options to purchase 13,802 restricted Common Shares at \$1.88 each for total proceeds of \$26,000.

In April 1998, a venture capital firm exercised 8,626 non-incentive stock options to purchase 8,626 restricted Common Shares at \$7.83 each for total proceeds of \$67,500.

In April 1998, in connection with the settlement of a dispute with a former director, the Company cancelled 3,450 shares of Common Stock previously held by the former director in return for \$1.45 per share, the price originally paid by the former director.

In September 1998, the Company sold 3,450 shares of restricted Common Stock to an individual for \$16.52 per share, yielding proceeds to the Company of \$57,000.

In June 1999, the Company sold 46,987 shares of Common Stock to individual investors for \$16.52 per share and warrants entitling the holders to purchase 5,218 Common Shares at \$14.87 per share (which warrants expired April 30, 2002), yielding proceeds to the Company of \$776,192.

In April 2000, the Company sold 230,873 Common Shares at \$2.17 per share to existing stockholders in a rights offering yielding proceeds to the Company of \$501,825.

The Company completed an initial public offering ("IPO") on October 19, 2000 of 1,200,000 units for \$6.00 per unit, each unit consisting of one share of Common Stock and one redeemable warrant to purchase one share of Common Stock at a price of \$6.60 until October 18, 2005. In connection with the initial public offering, the Company received \$7,200,000 before offering costs (\$5,371,468 after expenses). The Company also issued to the underwriters

warrants to purchase 120,000 units for \$6.60 per unit, each unit consisting of one Common Share and one redeemable warrant to purchase one share of Common Stock at a price of \$10.50 until October 18, 2005. The Company also issued 85,000 shares of Common Stock valued at \$510,000 for legal services provided in connection with the offering.

Also, in connection with the initial public offering, the holders of the 2,000,000 outstanding shares of the Company's Class A Preferred Stock and the 416,675 outstanding shares of the Company's Class B Preferred Stock agreed to convert their shares into Common Stock prior to the closing of the offering. Upon the conversion of the Company's Class A Preferred Stock and the Company's Class B Preferred Stock into 833,873 shares of Common Stock, the holders of the Class A and Class B shares received an aggregate of \$499,535 in cash and 690,910 shares of Common Stock valued at \$990,070 in payment of declared dividends.

In December 2000, the Company issued 1,720 Common Stock options at an exercise price of \$3.31, fair valued at \$2.21 per option for a total of \$3,800, and 1,720 warrants to purchase Common Stock at an exercise price of \$6.00, fair valued at \$0 per warrant, as compensation for consulting services. Both the options and warrants expire December 1, 2005.

The Company issued the following Common Stock warrants in 2001 for consulting services:

(1) 150,000 fully vested warrants to purchase 150,000 units at \$7.00 per unit, through January 4, 2005, each unit consisting of one fully-paid and non-assessable share of Common Stock, and one Common Stock purchase warrant entitling the holder to purchase one share of Common Stock for \$6.60 per share. None of these warrants have been exercised as of December 31, 2002. Such warrants, valued at \$175,000, were recognized as an expense in the first quarter of 2001; and

(2) 150,000 warrants to purchase up to 150,000 shares of Common Stock, through April 30, 2005, for \$6.60 per share. 25,000 of such warrants vested in 2001 and the remaining 125,000 warrants would have vested by May 2002 if the share price of the Company's Common Stock exceeded certain share price levels above the IPO price by May 2002. As of May 2002, none of the thresholds had been met, and the 125,000 remaining warrants did not vest and were forfeited. None of the 25,000 vested warrants had been exercised as of December 31, 2002. The 25,000 vested, non-contingent warrants have been valued at \$23,000, and were recognized as an expense in the first quarter of 2001. The expenses, as noted in (1) and (2) above, recognized with these two warrant issues are non-cash expenses.

The values of the above warrants were \$1.17 per warrant for warrants described in (1) above, and \$ .90 per warrant for the 25,000 warrants that vested immediately described in (2) above, and were estimated on the date of grant using the Black-Scholes option-pricing model with the following weighted-average assumptions, respectively: risk free interest rates of 4.95% and 5.9%, volatility of 26.7% and 22.9%, expected lives of four years and four and one half years, with no dividend yield for either issue.

In 2001, the Company cancelled a total of 36 shares of Common Stock which represented the total of fractional shares resulting from stock splits during September and October 2000 in connection with the Company's initial public offering.

On October 30, 2001, the Company entered into a Rights Agreement with American Stock Transfer & Trust Company (the "Rights Agreement") in connection with the implementation of

the Company's stockholder rights plan (the "Rights Plan"). The purposes of the Rights Plan are to deter, and protect the Company's shareholders from, certain coercive and otherwise unfair takeover tactics and to enable the Board of Directors to represent effectively the interests of shareholders in the event of a takeover attempt. The Rights Plan does not deter negotiated mergers or business combinations that the Board of Directors determines to be in the best interests of the Company and its shareholders.

To implement the Rights Plan, the Board of Directors declared a dividend of one Common Stock purchase right (a "Right") for each share of Common Stock of the Company, par value \$0.01 per share (the "Common Stock") outstanding at the close of business on November 14, 2001 (the "Record Date") or issued by the Company on or after such date and prior to the earlier of the Distribution Date, the Redemption Date or the Final Expiration Date (as such terms are defined in the Rights Agreement). The rights expire October 30, 2011. Each Right entitles the registered holder to purchase from the Company one share of Common Stock, at a price of \$5.00 per share, subject to adjustment (the "Purchase Price"), in the event that a person, or group announces that it has acquired, or intends to acquire, 15% or more of the Company's outstanding Common Stock.

On April 3, 2002, the Company received \$267,500 by completing a private placement of 243,181 shares of its Common Stock and warrants to purchase up to 20,265 shares of Common Stock at an exercise price of \$1.32 per share that expire on April 3, 2005.

(b) Common Stock Repurchases

Pursuant to a stock repurchase plan approved in 2002 by the Company's Board of Directors, the Company repurchased 28,100 shares of Common Stock for \$51,103 during 2002. The Company has been authorized by the Board of Directors to purchase up to seven percent of its outstanding Common Stock.

(c) Stock Option Plans

The Company established an Incentive Stock Option Plan, a Non-Incentive Stock Option Plan, the 2000 Stock Option Plan and the 2001 Stock Option Plan (collectively, the "Plans") under which stock options may be granted. Additionally, the Company has entered into separate contracts apart from the Plans under which options to purchase Common Stock have been granted. A stock option grant allows the holder of the option to purchase a share of the Company's Common Stock in the future at a stated price. The Plans are administered by the Compensation Committee of the Board of Directors which determines the individuals to whom the options shall be granted as well as the terms and conditions of each option grant, the option price and the duration of each option.

The Company's Incentive and Non-Incentive Stock Option Plans were approved and became effective on November 1, 1992. During 2000 and 2001, respectively, the 2000 and 2001 Stock Option Plans became effective. Options granted under the Plans vest as determined by the Company and expire over varying terms, but not more than five years from the date of grant. Stock option activity for the period January 1, 2001 through December 31, 2002 is as follows:

	The Plans		Other Option Grants	
	Shares	Weighted Average Exercise Price	Shares	Weighted Average Exercise Price
Outstanding at				
December 31, 2000	689,684	\$ 3.82	17,252	\$ 2.90
Granted during 2001	280,000	.83	--	--
Expired during 2001	(84,000)	3.31	--	--
Outstanding at				
December 31, 2001	885,684	2.94	17,252	2.90
Granted during 2002	260,000	.71	--	--
Expired during 2002	--		(17,252)	2.90
Outstanding at				
December 31, 2002	1,145,684	\$ 2.43	--	\$ --

The following summarizes information about shares subject to option at December 31, 2002:

Options outstanding				Options exercisable	
Number outstanding	Range of exercise prices	Weighted average exercise price	Weighted average remaining life in years	Number exercisable	Weighted average exercise price
100,000	\$ .60	\$ .60	3.92	50,000	\$ .60
260,000	.71	.71	4.25		.71
150,000	.85	.85	4.00	66,000	.85
30,000	1.53	1.53	3.67	7,500	1.53
172,525	2.90	2.90	2.00	172,525	2.90
164,020	3.31	3.31	2.95	164,020	3.31
269,139	4.93	4.93	1.00	269,139	4.93
-----				-----	
1,145,684	\$ .60 - \$4.93	\$2.43	2.88	729,184	\$3.38
=====	=====	=====	=====	=====	=====

At December 31, 2001, options for 622,936 shares were exercisable at a weighted average exercise price of \$3.89 per share.

(3) Income Taxes

As of December 31, 2002, the Company had net operating loss carryforwards for federal income tax purposes of approximately \$12,882,000 which may be available to offset future federal taxable income, if any, through 2022. The use of net operating loss carryforwards is subject to limitation in the event of a change in the Company's ownership, as defined by federal income tax regulations. The net operating loss carryforwards resulted in a deferred tax asset of approximately \$4,380,000 at December 31, 2002 (\$3,777,000 at December 31, 2001). Management does not expect the Company to be taxable in the near future and established a 100% valuation allowance against the deferred tax asset created by the net operating loss carryforwards at December 31, 2002 and 2001. The valuation allowance increased \$603,000 during the year ended December 31, 2002 and \$568,000 during the year ended December 31, 2001.

(4) Due From Affiliate

The Company sublet office space from a corporation controlled by an officer of the Company (the "affiliate"), whose lease with the landlord expired August 1997. Thereafter, the Company's occupancy of the premises continued pursuant to an informal arrangement, under which the Company remitted monthly rental payments directly to the landlord. Rent expense incurred pursuant to this arrangement amounted to \$87,376 for 2001. The informal arrangement was replaced as of January 1, 2002 with a lease agreement between the Company and the landlord (see Note 6). In connection with its occupancy, the Company paid the affiliate \$24,000 which the affiliate then paid to the landlord as a deposit on the lease.

(5) Deferred Costs in Connection with a Proposed Financing Transaction

On December 5, 2002, the Company filed with the Securities and Exchange Commission a registration statement for the issuance of units, each unit to consist of Common Shares and warrants to purchase Common Shares. The Company has incurred \$238,571 of costs associated with the transaction. These costs will be netted against the proceeds from the stock offering and charged to additional paid-in capital, or charged to expense if the transaction is not consummated. As of December 31, 2002, \$21,705 of these costs were accrued.

(6) Rents

On April 1, 2002, the Company executed an Amendment of Lease (the "Amendment") directly with the landlord. The Amendment is effective January 1, 2002 and expires December 22, 2003, and can be renewed by the Company for an additional three years. Rent expense under this lease for the year ended December 31, 2002 was \$89,082. Future minimum rent under this lease is \$91,055 for the year ending December 31, 2003.

(7) Subsequent Event

On January 31, 2003, the stockholders voted to approve an amendment to the Company's Certificate of Incorporation to increase the authorized number of shares of Common Stock, par value \$0.01 per share, from 15 million to 35 million.

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PART II

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Item 24. Indemnification of Directors and Officers

Section 145 of the General Corporation Law of the State of Delaware provides for the indemnification of officers and directors under certain circumstances against expenses incurred in successfully defending against a claim and authorizes a Delaware corporation to indemnify its officers and directors under certain circumstances against expenses and liabilities incurred in legal proceedings involving such persons because of their being or having been an officer or director.

Section 102(b) of the Delaware General corporation Law permits a corporation, by so providing in its certificate of incorporation, to eliminate or limit a director's liability to the corporation and its stockholders for monetary damages arising out of certain alleged breaches of their fiduciary duty. Section 102(b)(7) provides that no such limitation of liability may affect a director's liability with respect to any of the following:

- o breaches of the director's duty of loyalty to the corporation or its stockholders;
- o acts or omissions not made in good faith or which involve intentional misconduct of knowing violations of law;
- o liability for dividends paid or stock repurchased or redeemed in violation of the Delaware General Corporation law; or
- o any transaction from which the director derived an improper personal benefit.
- o Section 102(b)(7) does not authorize any limitation on the ability of the company or its stockholders to obtain injunctive relief, specific performance or other equitable relief against directors.

Article Seventh of the Registrant's Certificate of Incorporation provides that the personal liability of the directors of the Registrant be eliminated to the fullest extent permitted under Section 102(b) of the Delaware General Corporation Law.

Article Eighth of the Registrant's Certificate of Incorporation and the Registrant's By-laws provide that all persons whom the Registrant is empowered to indemnify pursuant to the provisions of Section 145 of the Delaware General Corporation Law (or any similar provision or provisions of applicable law at the time in effect), shall be indemnified by the Registrant to the full extent permitted thereby. The foregoing right of indemnification shall not be deemed to be exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors, or otherwise.

Reference is made to the Underwriting Agreement, to be filed as Exhibit 1, pursuant to which the underwriters agree to indemnify the directors and certain officers of the Registrant and certain other persons against certain civil liabilities.

The Registrant maintains a liability and indemnification insurance policy in the amount of \$2,500,000 for a period extending from October 19, 2002 to October 19, 2003 issued by Carolina Casualty Insurance Company covering all our officers and directors, at an annual expense of \$122,000.

Item 25. Other Expenses of Issuance and Distribution

The following table sets forth the expenses (other than the underwriting discounts and commissions and the representative's non-accountable expense allowance) expected to be incurred in connection with the issuance and distribution of the securities being registered. All of such expenses are estimates, other than the

filing fees payable to the Securities and Exchange Commission and the National Association of Securities Dealers, Inc.

Filing Fee - Securities and Exchange Commission .....	\$ 318
Filing Fee - National Association of Securities Dealers, Inc.	500
Filing Fee - Boston Stock Exchange .....	12,500
Filing Fee - Nasdaq Small Cap Market .....	50,000
Fees and Expenses of Accountants .....	65,000
Fees and Expenses of Counsel .....	170,000
Printing and Engraving Expenses .....	10,000
Blue Sky Fees and Expenses .....	10,000
Transfer Agent Fees .....	5,000
Miscellaneous Expenses .....	6,682
	-----
Total: .....	\$330,000
	-----

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 \* To be filed by amendment.

ITEM 27. EXHIBITS

Exhibit No. -----	Description -----
1	Form of Underwriting Agreement.
3.1	Amended and Restated Certificate of Incorporation of Delcath Systems, Inc. (incorporated by reference to Exhibit 3.1 to Registrant's Annual Report on Form 10-KSB for the year ended December 31, 2002 (File No. 001-16133)).
3.2	Amended and Restated By-Laws of Delcath Systems, Inc. (incorporated by reference to Exhibit 3.2 to Amendment No. 1 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
4.1	Form of Underwriter's Unit Warrant Agreement.
4.2	Specimen 2003 Warrant.
4.3	Warrant Agreement, dated January 5, 2001, by and between Delcath Systems, Inc. and Euroland Marketing Solutions, Ltd. (incorporated by reference to Exhibit 4.5 to the Registrant's Annual Report on Form 10-KSB for the year ended December 31, 2000 (Commission File No. 001-16133)).
4.4	Warrant No. W-2 to purchase up to 150,000 units granted to Euroland Marketing Services, Ltd. (incorporated by reference to Exhibit 4.6 to the Registrant's Annual Report on Form 10-KSB for the year ended December 31, 2000 (Commission File No. 001-16133)).

Exhibit No. -----	Description -----
4.5	Rights Agreement, dated October 30, 2001, by and between Delcath Systems, Inc. and American Stock Transfer & Trust Company, as Rights Agent (incorporated by reference to Exhibit 4.7 to Registrant's Form 8-A dated November 12, 2001 (Commission File No. 001-16133)).
4.6	Form of Warrant Agreement by and between Delcath Systems, Inc. and Whale Securities Co., L.P. (incorporated by reference to Exhibit 4.2 to Amendment No. 5 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
4.7	Form of Warrant Agreement by and between American Stock Transfer & Trust Company, as warrant agent, Whale Securities Co., L.P. and Delcath Systems, Inc. (incorporated by reference to Exhibit 4.3 to Amendment No. 5 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
4.8	Form of Warrant Agent Agreement by and between Delcath Systems, Inc. and American Stock Transfer & Trust Company, as warrant agent with respect to the 2003 Warrants.
5	Opinion of Cummings & Lockwood LLC (to be filed by amendment)
10.1	1992 Incentive Stock Option Plan (incorporated by reference to Exhibit 10.1 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.2	1992 Non-Incentive Stock Option Plan (incorporated by reference to Exhibit 10.2 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.3	2000 Stock Option Plan (incorporated by reference to Exhibit 10.3 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.4	2001 Stock Option Plan (incorporated by reference to Exhibit 10.12 to Amendment No. 1 to Registrant's Annual Report on Form 10-KSB for the year ended December 31, 2001 (Commission File No. 001-16133)).
10.5	Employment Agreement, dated April 30, 1996, between Delcath Systems, Inc. and M.S. Koly, as amended on April 30, 1999 (incorporated by reference to Exhibit 10.4 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.6	Employment Agreement, dated April 30, 1996, between Delcath Systems, Inc. and Samuel Herschkowitz, M.D., as amended on April 30, 2000 (incorporated by reference to Exhibit 10.4 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.7	Distributorship Agreement, dated as of December 27, 1996, by and between Delcath Systems, Inc. and Nissho Corporation (incorporated by reference to Exhibit 10.6 to Registrant's Registration Statement on Form SB-2 (Registration No. 333-39470)).
10.8	Consulting Services Agreement, between Delcath Systems, Inc. and Euroland Marketing Solutions, Ltd. (incorporated by reference to Exhibit 10.9 to the Registrant's Annual Report on Form 10-KSB for the year ended December 31, 2000 (Commission File No. 001-16133)).
10.9	Amendment to Key Employment Agreement, dated October 30, 2001, by and between Delcath Systems, Inc. and M. S. Koly (incorporated by reference to Exhibit 10.10 to Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2001 (Commission File No. 001-16133)).
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	Delcath Systems, Inc. and Samuel Herschkowitz (incorporated by reference to Exhibit 10.11 to Registrant's Quarterly Report on Form 10-Q for the period ended September 30, 2001 (Commission File No. 001-16133)).
23.1	Consent of Eisner LLP.
23.2	Consent of Cummings & Lockwood LLC (to be contained in Exhibit 5 hereto).
24	Powers of Attorney (incorporated by reference to Exhibit 24 to the Registrant's Registration Statement on Form SB-2 (Registration No. 333-101661)).

SIGNATURES

In accordance with 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 of filing on Form SB-2 and authorized this amendment to its registration statement to be signed on its behalf by the undersigned, in City of Stamford, State of Connecticut on March 17, 2003.

DELCATH SYSTEMS, INC.

By: /s/ M. S. Koly

-----  
M. S. Koly, President

Pursuant to the requirements of the Securities Act of 1933, this amendment to the registration statement has been signed below by the following persons in the capacities and on the date indicated.

Signature	Title	)
-----	-----	)
M.S.	KOLY Chief Executive Officer (Principal Executive Officer) and Director	)
THOMAS S. GROGAN	Chief Financial Officer (Principal Financial and Accounting Officer)	)
SAMUEL HERSCHOWITZ, M.D.	Chairman and Director	)
MARK A. CORIGLIANO	Director	)
DANIEL ISDANER	Director	)
VICTOR NEVINS	Director	)

By /s/ M. S. Koly  
-----  
M. S. Koly  
Attorney-in-fact

Date: March 17, 2003

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\_\_\_\_\_ Units, each Unit Consisting of  
Five Shares of Common Stock and  
Five Redeemable Common Stock Purchase Warrants  
Each to Purchase One Share  
of

Delcath Systems, Inc.

UNDERWRITING AGREEMENT  
-----

New York, New York  
\_\_\_\_\_, 2003

Roan/Meyers Associates, L.P.  
as Representative of the several  
Underwriters named in Schedule I  
17 State Street  
New York, New York 10004

Ladies and Gentlemen:

Delcath Systems, Inc., a Delaware corporation (the "Company"), proposes to issue and sell \_\_\_\_\_ units (the "Units"), each Unit comprised of five shares ("Shares") of the Company's common stock, par value \$.01 per share (the "Common Stock") and five Redeemable Common Stock Purchase Warrants each to purchase one share of Common Stock (the "Warrants") in a public offering (the "Offering") under Section 5 of the Securities Act of 1933, as amended (the "Securities Act"). The Units, Shares and Warrants (together, referred to as the "Firm Securities") and together with all or any part of the up to \_\_\_\_\_ [15% of Firm Units] additional Units subject to the overallotment option described in Section 2(b) hereof (the "Overallotment Securities") are hereinafter collectively referred to as the "Securities." This agreement confirms the agreement by the underwriters named in Schedule I ("Underwriters") to purchase, jointly and not severally, the Firm Securities from the Company upon the terms and conditions contained herein. Roan/Meyers Associates, L.P., shall act as managing underwriter and representative (the "Representative") of the several underwriters.

The Company also proposes to issue and sell to the Representative, a warrant (the "Underwriters' Unit Purchase Warrant") pursuant to the Underwriters' Warrant Agreement (the "Underwriters' Warrant Agreement") for the purchase of an aggregate of 10% of the number of Units being sold (not including the Overallotment Securities) (the "Underwriters' Warrant Units"), as provided in Section 2(d) hereof. The Securities, the Underwriters' Warrant Agreement and Underwriters' Warrant Units are more fully described in the Registration Statement (as defined in Subsection 1(a) hereof) and the Prospectus (as defined in Subsection 1(a) hereof). Unless the context otherwise requires, all references to the "Company" shall include all presently existing subsidiaries and any entities acquired by the Company on or prior to the Closing Date (defined in Subsection 2(c) hereof). All representations, warranties and opinions of counsel required hereunder shall cover any such subsidiaries and acquired entities.

1. REPRESENTATIONS AND WARRANTIES OF THE COMPANY. The Company represents and warrants to, and agrees with, the Underwriters as of the date hereof, and as of the Closing Date and any Overallotment Closing Date (as defined in Subsection 2(c) hereof), if any, as follows:

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(a) The Company has filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form SB-2 (SEC File No. 333-101661) including any related preliminary prospectus (each a "Preliminary Prospectus"), for the registration of the offer and sale of the Securities under the Securities Act, which registration statement and any amendment or amendments have been prepared by the Company in conformity with the requirements of the Securities Act and the Rules and Regulations (as hereinafter defined) of the Commission. The registration statement with respect to the Securities, including any Preliminary Prospectus, copies of which have heretofore been delivered to the Representative, has been prepared by the Company in conformity with the requirements of the Securities Act and the Rules and Regulations. Following execution of this Agreement, the Company will promptly file (i) if the registration statement has been declared effective by the Commission, (A) a Term Sheet (as defined in the Rules and Regulations) pursuant to Rule 434 under the Act or (B) a final Prospectus under Rules 430A and/or 424(b) under the Securities Act, in either case in form satisfactory to the Representative or (ii) in the event the registration statement has not been declared effective, a further amendment to said registration statement in the form heretofore delivered to the Representative and will not, before the registration statement becomes effective, file any other amendment thereto unless the Representative shall have consented thereto after having been furnished with a copy thereof. Except as the context may otherwise require, such registration statement, as amended, on file with the Commission at the time the registration statement becomes effective (including the prospectus, financial statements, schedules, exhibits and all other documents filed as a part thereof and all information deemed to be a part thereof as of such time pursuant to paragraph (b) of Rule 430A of the Rules and Regulations), is hereinafter called the "Registration Statement" and the form of prospectus in the form first filed with the Commission pursuant to Rule 424(b) of the Rules and Regulation, is hereinafter called the "Prospectus." For purposes hereof, "Rules and



Regulations" mean the rules and regulations adopted by the Commission under either the Securities Act or the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as applicable.

(b) Neither the Commission nor any state regulatory authority has issued any order preventing or suspending the use of any Preliminary Prospectus, the Registration Statement or the Prospectus or any part thereof and no proceedings for a stop order have been instituted or are pending or, to the best knowledge of the Company, threatened. Each of the Preliminary Prospectus, the Registration Statement and the Prospectus at the time of filing thereof conformed in all material respects with the requirements of the Securities Act and the Rules and Regulations, and neither the Preliminary Prospectus, the Registration Statement nor the Prospectus at the time of filing thereof contained an untrue statement of a material fact or omitted to state a material fact required to be stated therein and necessary to make the statements therein, in light of the circumstances under which they were made, not misleading, except that this representation and warranty does not apply to statements made or statements omitted in reliance upon and in conformity with written information furnished to the Company with respect to the Underwriters by or on behalf of the Underwriters expressly for use in such Preliminary Prospectus, Registration Statement or Prospectus.

(c) When the Registration Statement became or becomes effective and at all times subsequent thereto up to the Closing Date and each Overallotment Closing Date (as hereinafter defined) and during such longer period as the Prospectus may be required to be delivered in connection with sales by the Underwriters or a dealer, the Registration Statement and the Prospectus will contain all material statements which are required to be stated therein in compliance with the Act and the Rules and Regulations, and conforms in all material respects with the requirements of the Securities Act and the Rules and Regulations; neither the Registration Statement, nor any amendment thereto, at the time the Registration Statement or

such amendment was or is declared effective under the Securities Act, contained or will contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, not misleading, and the Prospectus at the time the Registration Statement became or becomes effective, at the Closing Date and at any Overallotment Closing Date, did not or will not contain an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; provided, however, that this representation and warranty does not apply to statements made or statements omitted in reliance upon and in conformity with information supplied to the Company in writing by or on behalf of the Underwriters expressly for use in the Registration Statement or Prospectus or any amendment thereof or supplement thereto.

(d) The Company has been duly incorporated and is now, and at the Closing Date and any Overallotment Closing Date will be, validly existing as a corporation in good standing under the laws of the State of Delaware. The Company has no subsidiaries and, other than as described in the Registration Statement, the Company does not own, directly or indirectly, an interest in any corporation, partnership, trust, joint venture or other business entity. The Company is duly qualified to do business and in good standing as a foreign corporation in each jurisdiction in which its ownership or leasing of its properties or the character of its operations requires such qualification to do business, except where the failure to so qualify could not reasonably be expected to have a material adverse effect on the Company. The Company has all requisite corporate power and authority, and has obtained any and all necessary applications, approvals, orders, licenses, certificates, franchises and permits of and from all governmental or regulatory officials and bodies (including, without limitation, those having jurisdiction over environmental or similar matters), to own or lease its properties and conduct its business as described in the Prospectus; the Company is and has been doing business in compliance with all such authorizations, approvals, orders, licenses, certificates, franchises, and permits and all federal, state, local and foreign laws, rules and regulations except where the failure to comply could not reasonably be expected to have a material adverse effect on the Company; and the Company has not received any notice of proceedings relating to the revocation or modification of any such authorization, approval, order, license, certificate, franchise, or permit which, singly or in the aggregate, if the subject of an unfavorable decision ruling or finding, could reasonably be expected to have a material adverse effect on the condition, financial or otherwise, or the prospects, value, operation, properties or business of the Company. The disclosures, if any, in the Registration Statement concerning the effects of federal, state, local, and foreign laws, rules and regulations on the Company's business as currently conducted and as contemplated are correct in all material respects and do not omit to state a material fact necessary to make the statements contained therein not misleading in light of the circumstances in which they were made.

(e) The Company has a duly authorized, issued and outstanding capitalization as set forth in the Prospectus under the caption "Capitalization" and will have the adjusted capitalization set forth therein on the Closing Date and the Overallotment Closing Date, if any, based upon the assumptions set forth therein. The Company is not a party to or bound by any instrument, agreement or other arrangement providing for the Company to issue any capital stock, rights, warrants, options or other securities, except as contemplated by this Agreement, the Underwriters' Unit Purchase Warrant and as otherwise described in the Prospectus. The Securities, the Underwriters' Unit Purchase Warrant and the Underwriters' Warrant Units and all other securities issued or issuable by the Company conform or, when issued and paid for, will conform in all respects to all statements with respect thereto contained in the Registration Statement and the Prospectus. All issued and outstanding securities of the Company have been

duly authorized and validly issued and all outstanding shares of Common Stock are fully paid and non-assessable; the holders of all outstanding securities have no rights of rescission with respect thereto, and are not subject to personal liability by reason of being such holders; and none of such securities were issued in violation of the preemptive rights of any holders of any security of the Company, or similar contractual rights granted by the Company to subscribe for or purchase securities. The Securities, the Underwriters' Unit Purchase Warrant and the Underwriters' Warrant Units to be issued and sold by the Company hereunder, and upon payment therefor, are not and will not be subject to any preemptive or other similar rights of any stockholder to subscribe for or purchase securities, have been duly authorized and, when issued, paid for and delivered in accordance with the terms hereof and thereof, will be validly issued, and, with respect to the shares of Common Stock included in the Securities, fully paid and non-assessable and will conform to the descriptions thereof contained in the Prospectus, and the holders thereof will not be subject to any liability solely as such holders. All corporate action required to be taken for the authorization, issuance and sale of the Securities, the Underwriters' Unit Purchase Warrant and the Underwriters' Warrant Units has been duly and validly taken; and the certificates, if any, representing the Securities will be in legally proper form. Upon the issuance and delivery pursuant to the terms hereof of the Securities to be sold to the Underwriters by the Company hereunder, the Underwriters will acquire title to such Securities free and clear of any lien, charge, claim, encumbrance, pledge, security interest, defect or other restriction or equity of any kind whatsoever as a result of any action taken or not taken by the Company.

(f) The financial statements of the Company, together with the related notes thereto, included in the Registration Statement, the Preliminary Prospectus and the Prospectus fairly present the financial position and the results of operations of the Company at the respective dates and for the respective periods to which they apply; and such financial statements have been prepared in conformity with generally accepted accounting principles and the Rules and Regulations, consistently applied throughout the periods involved except as otherwise disclosed therein. Other than as described in the Prospectus, there has been no material adverse change or development involving a prospective change in the condition, financial or otherwise, or in the prospects, value, operation, properties or business of the Company, whether or not arising in the ordinary course of business, since the dates of the financial statements included in the Registration Statement and the Prospectus. The outstanding debt, the property, both tangible and intangible, the capitalization and the business of the Company conform in all material respects to the descriptions thereof contained in the Registration Statement and in the Prospectus.

(g) The Company maintains a system of internal accounting controls sufficient to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(h) Eisner LLP whose report is filed with the Commission as a part of the Registration Statement, is an independent auditor as required by the Act and the Rules and Regulations.

(i) Except for any taxes being duly contested by the Company, the Company: (i) has paid all federal, state, local and foreign taxes for which it is liable, including, but not limited to, payroll withholding taxes and taxes payable under Chapters 21 through 24 of the

Internal Revenue Code of 1986 (the "Code"); (ii) has furnished all tax and information returns it is required to furnish pursuant to the Code, and has established adequate reserves for such taxes which are not due and payable; and (iii) does not have knowledge of any tax deficiency or claims outstanding, proposed or assessed against it.

(j) The Company maintains insurance, which is in full force and effect, of the types and in the amounts which it reasonably believes to be adequate for its business (but in no event less than \$1,000,000 per occurrence and \$3,000,000 in the aggregate), including, but not limited to, personal injury and product liability insurance covering all personal and real property owned or leased by the Company against fire, theft, damage and all risks customarily insured against by corporations in circumstances similar to those of the Company.

(k) Except as disclosed in the Prospectus, there is no action, suit, proceeding, inquiry, investigation, litigation or governmental proceeding (including, without limitation, those having jurisdiction over environmental or similar matters), domestic or foreign, pending or, to the knowledge of the Company, threatened against, or involving the properties or business of the Company which: (i) questions the validity of the capital stock of the Company or this Agreement or of any action taken or to be taken by the Company pursuant to or in connection with this Agreement; (ii) is required to be disclosed in the Registration Statement which is not so disclosed (and such proceedings as are summarized in the Registration Statement are accurately summarized in all respects); or (iii) could reasonably be expected to have a material adverse effect on the condition, financial or otherwise, prospects, operation, properties or business of the Company.

(l) The Company has full legal right, power and authority to enter into this Agreement and the Underwriters' Warrant Agreement and to consummate the transactions provided for in this Agreement, the Underwriters' Warrant Agreement and the Warrant Agreement between the Company and its Transfer and Warrant Agent (the "Transfer Agent Agreement") have each been duly authorized, executed and delivered by the Company. Each of this Agreement and the Underwriters' Warrant Agreement constitutes a legally valid and binding agreement of the Company, subject to due authorization, execution and delivery by the Representative on behalf of the Underwriters, enforceable against the Company in accordance with its terms (except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting enforcement of creditors' rights and the application of equitable principles in any action, legal or equitable, and except as rights to indemnity or contribution may be limited by applicable law). Neither the Company's execution or delivery of this Agreement, the Underwriter's Warrant Agreement or the Transfer Agent Agreement, its performance hereunder and thereunder, its consummation of the transactions contemplated herein and therein, nor the conduct of its business as described in the Registration Statement, the Prospectus, and any amendments or supplements thereto, except as may not reasonably be expected to have a material adverse effect on the Company, conflicts with or will conflict with or results or will result in any breach or violation of any of the terms or provisions of, or constitutes or will constitute a default under, or result in the creation or imposition of any material lien, charge, claim, encumbrance, pledge, security interest, defect or other restriction or equity of any kind whatsoever upon, any property or assets (tangible or intangible) of the Company pursuant to the terms of: (i) the Certificate of Incorporation or By-Laws of the Company; (ii) any license, contract, indenture, mortgage, deed of trust, voting trust agreement, stockholders agreement, note, loan or credit agreement or any other agreement or instrument to which the Company is a party or by which the Company is bound or to which any of its properties or assets (tangible or intangible) is or may be subject; or (iii) any statute, judgment, decree, order, rule or regulation

applicable to the Company of any arbitrator, court, regulatory body or administrative agency or other governmental agency or body (including, without limitation, those having jurisdiction over environmental or similar matters), domestic or foreign, having jurisdiction over the Company or any of its activities or properties.

(m) No consent, approval, authorization or order of, and no filing with, any court, regulatory body, government agency or other body, domestic or foreign, is required for the issuance of the Securities, the performance of this Agreement and the transactions contemplated hereby, except such as have been or may be obtained under the Securities Act or may be required under state securities or Blue Sky laws in connection with (i) the Underwriters' purchase and distribution of the Firm Securities and Overallotment Securities to be sold by the Company hereunder or (ii) the issuance and delivery of the Underwriters' Unit Purchase Warrant or the Underwriters' Warrant Units.

(n) All agreements filed as exhibits to the Registration Statement (or incorporated by reference to other filings by the Company pursuant to the Securities Act or the Exchange Act) have been duly and validly authorized, executed and delivered by the Company, and, assuming the due and valid authorization, execution and delivery thereof by the parties thereto other than the Company, constitute legally valid and binding agreements of the Company, enforceable against it in accordance with their respective terms (except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting enforcement of creditors' rights and the application of equitable principles in any action, legal or equitable, and except as rights to indemnity and contribution may be limited by applicable law). The descriptions contained in the Registration Statement of material contracts and other documents are accurate in all material respects and fairly present the information required to be shown with respect thereto by the Rules and Regulations and there are no material contracts, government grants, collaborative relationships, or other documents which are required by the Securities Act or the Rules and Regulations to be described in the Registration Statement or filed as exhibits to the Registration Statement which are not described or filed as required or have not previously been filed, and the exhibits which have been filed are complete and correct copies of the documents of which they purport to be copies.

(o) Subsequent to the respective dates as of which information is set forth in the Registration Statement and the Prospectus, and except as may otherwise be indicated or contemplated herein or therein, the Company has not: (i) issued any securities or incurred any liability or obligation, direct or contingent, for borrowed money in any material amount; (ii) entered into any transaction other than in the ordinary course of business; (iii) declared or paid any dividend or made any other distribution on or in respect of its capital stock; or (iv) made any changes in capital stock, material changes in debt (long or short term) or liabilities other than in the ordinary course of business; or (v) made any material changes in or affecting the general affairs, management, financial operations, stockholders equity or results of operations of the Company.

(p) No default exists in the due performance and observance of any material term, covenant or condition of any license, contract, indenture, mortgage, installment sales agreement, lease, deed of trust, voting trust agreement, stockholders agreement, note, loan or credit agreement, or any other agreement or instrument evidencing an obligation for borrowed money, or any other agreement or instrument to which the Company is a party or by which the Company may be bound or to which any of its property or assets (tangible or intangible) is

subject or affected except where such default cannot reasonably be expected to have a material adverse effect upon the Company.

(q) The Company is in compliance in all material respects with all federal, state, local, and foreign laws and regulations respecting employment and employment practices, terms and conditions of employment and wages and hours.

(r) The Company has not incurred any fines or penalties arising under or as a result of the application of the provisions of the Securities Act or the Exchange Act.

(s) Except as disclosed in the Prospectus, the Company does not presently maintain, sponsor or contribute to, and never has maintained, sponsored or contributed to, any program or arrangement that is an "employee pension benefit plan," an "employee welfare benefit plan" or a "multiemployer plan" as such terms are defined in Sections 3(2), 3(1) and 3(37) respectively of the Employee Retirement Income Security Act of 1974, as amended ("ERISA") ("ERISA Plans"). Except as disclosed in the Prospectus, the Company does not maintain or contribute, now or at any time previously, to a defined benefit plan, as defined in Section 3(35) of ERISA.

(t) The Company is not aware of any violation in any material respect by it of any domestic or foreign laws, ordinances or governmental rules or regulations to which it is subject.

(u) Except for registration rights for securities which are disclosed in all material respects in the Prospectus under the section entitled "Description of Capital Stock", no holders of any securities of the Company or of any options, warrants or other convertible or exchangeable securities of the Company exercisable for or convertible or exchangeable for securities of the Company have the right to include any securities issued by the Company in the Registration Statement or any registration statement to be filed by the Company or to require the Company to file a registration statement under the Act.

(v) Except as may be disclosed in the Prospectus, neither the Company, nor, to the Company's best knowledge, any of its employees, directors or affiliates (within the meaning of the Rules and Regulations) has taken, directly or indirectly, any action designed to or which has constituted or which might reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Securities or otherwise.

(w) To its knowledge after reasonable investigation, none of the patents, patent applications, trademarks, service marks, trade names and copyrights, or licenses and rights to the foregoing presently owned or held by the Company are in dispute or are in any conflict with the right of any other person or entity within the Company's current area of operations nor has the Company received notice of any of the foregoing. Except as described in the Prospectus, or as could not reasonably be expected to have a material adverse effect upon the Company, its financial condition or operations, the Company: (i) owns or has the right to use, free and clear of all liens, charges, encumbrances, pledges, security interests, defects or other restrictions or equities of any kind whatsoever, all patents, trademarks, service marks, trade names and copyrights, technology and licenses and rights with respect to the foregoing, used in the conduct of its business as now conducted or proposed to be conducted without infringing upon or otherwise acting adversely to the right or claimed right of any person, corporation or other entity under or with respect to any of the foregoing; and (ii) is not obligated or under any liability

whatsoever to make any payments by way of royalties, fees or otherwise to any owner or licensee of, or other claimant to, any patent, trademark, service mark trade name, copyright, know-how, technology or other intangible asset, with respect to the use thereof or in connection with the conduct of its business.

(x) To its knowledge, the Company owns or has the unrestricted right to use all material trade secrets, know-how (including all other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), patents, patent applications, inventions, designs, processes, works of authorship, computer programs and technical data and information (collectively herein "Intellectual Property") required for or incident to the development, manufacture, operation and sale of all products and services proposed to be sold by the Company, free and clear of and without violating any right, lien, or claim of others, including without limitation, former employers of its employees; provided, however, that the possibility exists that other persons or entities, completely independently of the Company, or employees or agents, could have developed trade secrets or items of technical information similar or identical to those of the Company.

(y) The Company has taken security measures which management believes to have been reasonable to protect the secrecy, confidentiality and value of all the Intellectual Property material to its operations.

(z) Except as disclosed in the Prospectus, the Company has good title to, or valid and enforceable leasehold estates in, all items of real and personal property owned or leased by it free and clear of all liens, charges, claims, encumbrances, pledges, security interests, defects, or other restrictions or equities of any kind whatsoever, other than liens for taxes or assessments not yet due and payable.

(aa) The Company has not incurred any liability and there are no arrangements or understandings for services in the nature of a finder's or origination fee with respect to the sale of the Securities or any other arrangements, agreements, understandings, payments or issuances with respect to the Company or any of its officers, directors, employees or affiliates that may adversely affect the Underwriters' compensation, as determined by the National Association of Securities Dealers, Inc. ("NASD") except for this Agreement and any other agreement between the Company and the Representative.

(bb) The Firm Securities and the Overallotment Securities have been approved for quotation on the Nasdaq SmallCap Stock Market, Inc. and the Boston Stock Exchange, subject to official notice of issuance, and the Company has received, prior to the Effective Date, written notification from the Nasdaq Stock Market that it has withdrawn any outstanding notices regarding delisting of the Company's Common Stock and that following the Closing of the Offering the Company's Common Stock shall not be subject to delisting proceedings.

(cc) Neither the Company nor any of its respective officers, employees, agents or any other person authorized to act on behalf of the Company, has, directly or indirectly, given or agreed to give any money, gift or similar benefit (other than legal price concessions to customers in the ordinary course of business) to any customer, supplier, employee or agent of a customer or supplier, or official or employee of any governmental agency (domestic or foreign) or instrumentality of any government (domestic or foreign) or any political party or candidate for office (domestic or foreign) or other person who was, is, or may be in a position to help or hinder the business of the Company (or assist the Company in connection with any actual or proposed transaction) which: (a) could reasonably be expected to subject the Company, or any other such person to any material damage or penalty in any civil, criminal or governmental litigation or

proceeding (domestic or foreign) or (b) could reasonably be expected to have a materially adverse effect on the assets, business or operations of the Company. The Company's internal accounting controls are sufficient to cause the Company to comply with the Foreign Corrupt Practices Act of 1977, as amended.

(dd) Except as set forth in the Prospectus or as not required to be disclosed pursuant to the Rules and Regulations, no officer or director or to the Company's knowledge, stockholder of the Company, or any "affiliate" or "associate" (as these terms are defined in Rule 405 promulgated under the Rules and Regulations) of any such person or entity or the Company, has or has had, either directly or indirectly, (i) an interest in any person or entity which (A) furnishes or sells services or products which are furnished or sold or are proposed to be furnished or sold to the Company, or (B) purchases from or sells or furnishes to the Company any goods or services, except with respect to the beneficial ownership of not more than 1% of the outstanding shares of capital stock of any publicly-held entity; or (ii) a beneficial interest in any contract or agreement to which the Company is a party or by which it may be bound or affected. Except as set forth in the Prospectus under "Related Party Transactions" or as not required to be disclosed pursuant to the Rules and Regulations, there are no existing agreements, arrangements, understandings or transactions, or proposed agreements, arrangements, understandings or transactions, between or among the Company, and any officer, director, or stockholder owning 5% or more of the Company's Common Stock, or any affiliate or associate of any such person or entity.

(ee) Any certificate signed by any officer of the Company and delivered to the Representative or to the Underwriters' Counsel (as hereinafter defined) shall be deemed a representation and warranty by the Company to the Underwriters as to the matters covered thereby.

(ff) The Company has entered into an employment agreement with each of M.S. Koly and Samuel Herschkowitz as described in the Prospectus. The Company has obtained or shall obtain prior to the Closing Date key person life insurance with an insurer rated at least AA or better in the most recent addition of "Best's Life Reports" in the amount of \$\_\_\_\_\_ on the life of each of Messrs. Koly and Herschkowitz. Such insurance shall be maintained in full force and effect for a period of three years from the Closing Date. The Company shall be the sole beneficiary of such policy.

(gg) No securities of the Company have been sold by the Company since January 1, 2000 except as disclosed in the Registration Statement.

(hh) The minute books of the Company have been made available to Underwriters' Counsel and contain a complete summary of all meetings and actions of the Board of Directors and Stockholders of the Company since its date of formation, except for minutes which have not yet been approved which have been made available in draft form. The stock ledgers of the Company are correct and accurate and reflect the record ownership of all owners of the Company's capital stock. All persons who, to the Company's knowledge, are owners of more than 5% of the Common Stock of the Company as set forth in the section of the Prospectus entitled "Principal Stockholders" and all transactions between such shareholders and the Company have been properly described in accordance with the Rules and Regulations.

(ii) Except as disclosed in writing to the Representative, no officer, or director of the Company nor any person who, to the Company's knowledge, is the owner of more than



5% of the Common Stock of the Company has any affiliation or association with any member of the NASD.

(jj) The Company shall use its best efforts to obtain (or continue in effect if previously obtained) Directors and Officers' liability insurance prior to the effective date of the Registration Statement in the face amount of at least \$2,000,000 per occurrence.

## 2. REPRESENTATIONS AND WARRANTIES OF THE UNDERWRITERS.

Each of the Underwriters, severally and not jointly, hereby represent and warrants to the Company as follows:

(a) The Underwriter is duly formed and validly existing and in good standing under the laws of its state of formation.

(b) The Underwriter is, and at the time of each Closing will be, a member in good standing of the NASD.

(c) Sales of Securities will only be made in such jurisdictions in which the Underwriter is a registered broker-dealer or where an applicable exemption from such registration exists.

(d) The Underwriter has full legal right, power and authority to enter into this Agreement and to consummate the transactions contemplated herein and this Agreement has been duly authorized, executed and delivered by the Underwriter (or by the Representative on behalf of the Underwriter). This Agreement constitutes a legally valid and binding agreement of the Underwriter enforceable against the Underwriter in accordance with its terms (except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting enforcement of creditors' rights and the application of equitable principles in any action, legal or equitable, and except as rights to indemnity or contribution may be limited by applicable law).

## 3. PURCHASE, SALE AND DELIVERY OF THE SECURITIES AND AGREEMENT TO ISSUE UNDERWRITERS' PURCHASE WARRANT

(a) On the basis of the representations, warranties, covenants and agreements herein contained, but subject to the terms and conditions herein set forth, the Company agrees to sell to the Underwriters and each Underwriter agrees, severally and not jointly, to purchase from the Company the respective number of Firm Securities set forth in Schedule I hereto opposite its name, subject to Section (b) hereof, at the price per Unit set forth below in Section 3(c).

(b) In addition, on the basis of the representations, warranties, covenants and agreements, herein contained, but subject to the terms and conditions herein set forth, the Company hereby grants an option to the Underwriters to purchase severally, and not jointly, up to an additional \_\_\_\_\_ Units [15% of Firm Units] (the "Overallotment Option"). The option granted hereby will expire 45 days after the date of the Prospectus, and may be exercised in whole or in part from time to time only for the purpose of covering over-allotments which may be made in connection with the offering and distribution of the Firm Securities upon notice by the Underwriters through the Representative to the Company, setting forth the number of Overallotment Securities as to which the Underwriters are then exercising the option and the time and date of payment and delivery for such Overallotment Securities. Any such time

and date of delivery shall be determined by the Representative, but shall not be later than seven full business days nor earlier than three full business days after the exercise of said option, nor in any event prior to the Closing Date, as defined in paragraph (c) below, unless otherwise agreed to between the Representative and the Company. In the event such option is exercised, the Underwriters shall purchase such number of Overallotment Securities then being purchased which shall have been allocated to the Underwriters, and which such shall have agreed to purchase, subject in each case to such adjustments as the Underwriters in their discretion shall make to eliminate any sales or purchases of fractional Securities. Nothing herein contained shall obligate the Underwriters to make any over-allotments. No Overallotment Securities shall be delivered unless the Firm Securities shall be simultaneously delivered or shall theretofore have been delivered as herein provided.

(c) Payment of the purchase price for, and delivery of certificates for, the Firm Securities and Overallotment Securities shall be made at the offices of the Representative, 17 State Street, New York, New York 10004, or at such other place as shall be designated by the Representative for the respective accounts of the several Underwriters. Such delivery and payment shall be made at 10:00 a.m. New York City time on \_\_\_\_\_, 2003 or at such other time and date as shall be designated by the Representative, but not more than three (3) business days after the first day of trading of the Securities following the effective date of the Registration Statement (such time and date of payment and delivery being hereafter called "Closing Date"). In addition, in the event that any or all of the Overallotment Securities are purchased by the Underwriters, payment of the purchase price for, and delivery of certificates for such Overallotment Securities shall be made at the above-mentioned office or at such other place and at such time (such time and date of payment and delivery being hereinafter called "Overallotment Closing Date") as shall be agreed upon by the Underwriters and the Company on any Overallotment Closing Date as specified in the notice from the Underwriters to the Company. Delivery of the certificates for the Firm Securities and the Overallotment Securities, if any, shall be made to the Underwriters against payment by the Underwriters of the purchase price for the Firm Securities and the Overallotment Securities, if any, to the order of the Company as the case may be by certified check in immediately available funds, certificates for the Firm Securities and the Overallotment Securities, if any, shall be in definitive, fully registered form, shall bear no restrictive legends and shall be in such denominations and registered in such names as the Underwriters may request in writing at least two (2) business days prior to Closing Date or the Overallotment Closing Date, as the case may be. The certificates for the Firm Securities and the Overallotment Securities, if any, shall be made available to the Underwriters at the above-mentioned office or such other place as the Underwriter may designate for inspection, checking and packaging no later than 9:30 a.m. on the last business day prior to Closing Date or the Overallotment Closing Date, as the case may be.

The purchase price of the Securities to be paid by the Underwriters to the Company for the Securities purchased under clauses (a) and (b) above will be \$\_\_\_\_\_ per Unit (which price is net of the Underwriters' discount of 10% per Unit). The Company shall not be obligated to sell any Securities hereunder unless all Firm Securities to be sold by the Company are purchased hereunder. The Company agrees to issue and sell the Securities to the Underwriters in accordance herewith.

(d) On the Closing Date, the Company shall issue and sell to the Representative, the Underwriters' Unit Purchase Warrant at a purchase price of \$\_\_\_\_\_ [165% of the Unit offering price] which Underwriters' Unit Purchase Warrant shall entitle the holders thereof to purchase an aggregate of \_\_\_\_\_ Units, representing 10% of Firm Units. The Underwriters' Unit Purchase Warrant shall not be exercisable for one year after the effective date

and will expire five years after the effective date of the Registration Statement and will have an initial exercise price equal to one hundred - five percent (165%) of the initial public offering price of the Units. The Underwriters' Unit Purchase Warrant shall not be redeemable, provided, however, the Warrants issuable upon exercise of the Underwriters' Unit Purchase Warrant shall be redeemable upon the same terms as the Warrants sold to the public. The Underwriters' Warrant Agreement and form of the Unit Purchase Warrant Certificate shall be substantially in the form filed as an exhibit to the Registration Statement. The Securities to be received by the Underwriters upon exercise of the Underwriters' Unit Purchase Warrant shall be the same as delivered to the public in the Offering. Payment for the Underwriters' Unit Purchase Warrant shall be made on the Closing Date. The Company has reserved and shall continue to reserve a sufficient number of Units, Shares and Warrants for issuance upon exercise of the Underwriters' Unit Purchase Warrant. The Underwriters' Unit Purchase Warrant will be restricted from sale, transfer, assignment or hypothecation for a period of one year from the effective date of the offering except to officers or partners (not directors) of the underwriter and members of the selling group and/or their officers or partners in compliance with NASD Rule 2710(c)(7)(A).

4. PUBLIC OFFERING OF THE SECURITIES. As soon after the Registration Statement becomes effective and as the Representative deems advisable, but in no event more than three (3) business days after such effective date of the Registration Statement (the "Effective Date"), the Underwriters shall make a public offering of the Securities (other than to residents of or in any jurisdiction in which qualification of the Securities is required and has not become effective) at the price and upon the other terms set forth in the Prospectus and otherwise in compliance with the Rules and Regulations and the rules of any governmental body or self-regulatory organization applicable to the Offering. The Underwriter may allow such concessions and discounts upon sales to other dealers as set forth in the Prospectus. The Underwriters may from time to time increase or decrease the public offering price after distribution of the Securities has been completed to such extent as the Representative, in its sole discretion, deem advisable.

5. COVENANTS OF THE COMPANY. The Company covenants and agrees with the Underwriters as follows:

(a) The Company shall use its best efforts to cause the Registration Statement and any amendments thereto to become effective as promptly as practicable and will not at any time, whether before or after the effective date of the Registration Statement, file any amendment to the Registration Statement or supplement to the Prospectus or file any document under the Exchange Act: (i) before termination of the Offering of the Securities by the Underwriters which the Underwriters shall not previously have been advised and furnished with a copy; or (ii) to which the Underwriters shall have objected; or (iii) which is not in compliance with the Securities Act, the Exchange Act or the Rules and Regulations.

(b) As soon as the Company is advised or obtains knowledge thereof, the Company will advise the Representative and confirm by notice in writing: (i) when the Registration Statement, becomes effective and, if the provisions of Rule 430A promulgated under the Securities Act will be relied upon, when the Prospectus has been filed in accordance with said Rule 430A and when any post-effective amendment to the Registration Statement becomes effective; (ii) of the issuance by the Commission of any stop order or of the initiation, or the threatening of, any proceeding, suspending the effectiveness of the Registration Statement or any order preventing or suspending the use of the Preliminary Prospectus or the Prospectus, or any amendment or supplement thereto, or the institution or proceeding for that purpose; (iii) of the initiation by any state securities commission of any proceedings for the suspension of the qualification of the Securities for offering or sale in any jurisdiction or of the initiation, or the

threatening, of any proceeding for that purpose; (iv) of the receipt of any comments from the Commission relating to the Registration Statement; and (v) of any request by the Commission for any amendment to the Registration Statement or any amendment or supplement to the Prospectus or for additional information. If the Commission or any state securities commission or regulatory authority shall enter a stop order or suspend such qualification at any time, the Company will make every reasonable effort to obtain promptly the lifting of such order.

(c) The Company shall file the Prospectus (in form and substance satisfactory to the Representative) with the Commission pursuant to Rule 424(b)(1) (or, if applicable and if consented to by the Representative, pursuant to Rule 424(b)(4)) not later than the Commission's close of business on the earlier of (i) the second business day following the execution and delivery of this Agreement and (ii) the fifth business day after the Effective Date.

(d) The Company will give the Representative notice of its intention to file or prepare any amendment to the Registration Statement (including any post-effective amendment) or any amendment or supplement to the Prospectus (including any revised prospectus which the Company proposes for use by the Underwriters in connection with the Offering of the Securities which differs from the prospectus on file at the Commission at the time the Registration Statement became or becomes effective, whether or not such revised prospectus is required to be filed pursuant to Rule 424(b) of the Rules and Regulations), will furnish the Underwriters with copies of any such amendment or supplement a reasonable amount of time prior to such proposed filing or use, as the case may be, and will not file any such prospectus to which the Underwriters or Goldstein & DiGioia, LLP ("Underwriters' Counsel") shall reasonably object.

(e) The Company shall cooperate in good faith with the Underwriters, and Underwriters' Counsel, at or prior to the time the Registration Statement becomes effective, in endeavoring to qualify the Securities for offering and sale under the securities laws of such jurisdictions as the Underwriters may reasonably designate, and shall cooperate with the Underwriters and Underwriters' Counsel in the making of such applications, and filing such documents and shall furnish such information as may be required for such purpose; provided, however, the Company shall not be required to qualify as a foreign corporation or file a general consent to service of process in any such jurisdiction. In each jurisdiction where such qualification shall be effected, the Company will, unless the Underwriters agree that such action is not at the time necessary or advisable, use all reasonable efforts to file and make such statements or reports at such times as are or may reasonably be required by the laws of such jurisdiction to continue such qualification.

(f) During the time when the Prospectus is required to be delivered under the Act, the Company shall use all reasonable efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act, as now and hereafter amended, and by the Rules and Regulations, as from time to time in force, so far as necessary to permit the continuance of sales of or dealings in the Securities in accordance with the provisions hereof and the Prospectus, or any amendments or supplements thereto. If at any time when the Prospectus relating to the Securities is required to be delivered under the Securities Act, any event shall have occurred as a result of which, in the opinion of counsel for the Company or Underwriters' Counsel, the Prospectus, as then amended or supplemented, includes an untrue statement of a material fact or omits to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading, or if it is necessary at any time to amend the Prospectus to comply with the Securities Act, the Company will notify the Underwriters promptly and prepare and file with the Commission an appropriate amendment or supplement in accordance with Section 10 of the Securities Act, each such

amendment or supplement to be reasonably satisfactory to Underwriters' Counsel, and the Company will furnish to the Underwriters a reasonable number of copies of such amendment or supplement.

(g) As soon as practicable, but in any event not later than 45 days after the end of the 12-month period commencing on the day after the end of the fiscal quarter of the Company during which the effective date of the Registration Statement occurs (90 days in the event that the end of such fiscal quarter is the end of the Company's fiscal year), the Company shall make generally available to its security holders, in the manner specified in Rule 158(b) of the Rules and Regulations, and to the Representative, an earnings statement which will be in such form and detail required by, and will otherwise comply with, the provisions of Section 11(a) of the Securities Act and Rule 158(a) of the Rules and Regulations, which statement need not be audited unless required by the Act, covering a period of at least 12 consecutive months after the Effective Date.

(h) During a period of five (5) years after the date hereof and provided that the Company is required to file reports with the Commission under Section 12 of the Exchange Act, the Company will furnish to its stockholders, as soon as practicable, annual reports (including financial statements audited by independent public accountants), and will deliver to the Representative:

(i) as soon as they are available, copies of all reports (financial or other) mailed to stockholders;

(ii) as soon as they are available, copies of all reports and financial statements furnished to or filed with the Commission, the Nasdaq Stock Market or any securities exchange;

(iii) every press release of the Company and any future subsidiaries which is released by the Company;

(iv) any additional information of a public nature concerning the Company and any future subsidiaries or their respective businesses which the Representative may reasonably request; or

(v) a copy of any Schedule 13D, 13G, 14D-1, 13E-3 or 13E-4 received or filed by the Company from time to time.

During such five-year period, if the Company has active subsidiaries, the foregoing financial statements will be on a consolidated basis to the extent that the accounts of the Company and its subsidiaries are consolidated, and will be accompanied by similar financial statements for any significant subsidiary which is not so consolidated.

In lieu of providing copies of the materials described in this Section 4(h) to the Representative, the Company may advise the Representative that such material has been filed electronically with the Commission.

(i) For at least two years following the completion of the Offering, the Company will maintain a Transfer Agent and Warrant Agent, which may be the same entity, and, if necessary under the same jurisdiction of incorporation as the Company, as well as a Registrar (which may be the same entity as the Transfer and Warrant Agent) for its Common Stock. Such

Transfer Agent and Warrant Agent, during such two-year period, shall be American Stock Transfer & Trust Company or such other entity reasonably acceptable to the Representative.

(j) The Company will furnish to the Underwriters or pursuant to the Underwriters' direction, without charge, at such place as the Underwriters may designate, copies of each Preliminary Prospectus, the Registration Statement and any pre-effective or post-effective amendments thereto (one of which copies will be manually executed and will include all financial statements and exhibits), the Prospectus, and all amendments and supplements thereto, including any prospectus prepared after the effective date of the Registration Statement, in each case as soon as available and in such quantities as the Underwriters may reasonably request.

(k) During the period commencing on the date hereof and ending 45 days hereafter, neither the Company, nor its officers or directors, nor affiliates of any of them (within the meaning of the Rules and Regulations) will take, directly or indirectly, any action designed to, or which might in the future reasonably be expected to cause or result in, stabilization or manipulation of the price of any securities of the Company.

(l) The Company shall apply the net proceeds from the sale of the Securities in substantially the manner, and subject to the provisions, set forth under the caption "Use of Proceeds" in the Prospectus. No portion of the net proceeds will be used directly or indirectly to acquire any securities previously issued by the Company.

(m) The Company shall timely file all such reports, forms or other documents as may be required from time to time, under the Securities Act, the Exchange Act, and the Rules and Regulations, and all such reports, forms and documents filed will comply as to form and substance with the applicable requirements under the Securities Act, the Exchange Act, and the Rules and Regulations.

(n) The Company shall furnish to the Underwriters as early as practicable prior to the Closing Date and the Overallotment Closing Date, if any, but no later than two (2) full business days prior thereto, a copy of the latest available unaudited consolidated interim financial statements of the Company (which in no event shall be as of a date more than forty-five (45) days prior to the date of the Registration Statement) which have been read by the Company's independent public accountants, as stated in their letters to be furnished pursuant to Section 6(j) hereof.

(o) For a period of two (2) years from the Closing Date, the Company shall furnish to the Representative at the Company's sole expense, (i) daily consolidated transfer sheets relating to the Securities upon the Representative's request; (ii) a list of holders of Securities upon the Representatives' request; (iii) a list of, if any, the securities positions of participants in the Depository Trust Company upon the Representative's request.

(p) For a period equal to the lesser of (i) five (5) years from the date hereof, or (ii) the sale to the public of the Underwriters' Warrant Units, the Company will not take any action or actions that may prevent or disqualify the Company's use of Form SB-2 or, if applicable, Form S-3 (or other appropriate form) for the registration under the Securities Act of the offer and sale of the warrants and shares of Common Stock underlying the Underwriter's warrant Units.

(q) For a period of five (5) years from the date hereof, use its best efforts at its cost and expense to maintain the listing of the Securities on the Nasdaq SmallCap Stock Market and Boston Stock Exchange.

(r) Following the Effective Date and for a period of two (2) years thereafter, the Company shall, at its sole cost and expense, prepare and file such blue sky trading applications with such jurisdictions as the Representative may reasonably request after consultation with the Company in order to provide for the resale of the Securities and the Warrants and Common Stock underlying the Underwriter's Unit Warrant.

(s) During the period commencing on the date hereof until six months from the date hereof, the Company shall not amend or alter any term of any written employment agreement between the Company and any executive officer, or alter or amend the amount of compensation payable to such employee during the term of such written employment agreement, in a manner more favorable to such employee, without the express written consent of the Representative.

(t) Until the completion of the distribution of the Securities and the termination of the Overallotment Option period, the Company shall not without the prior written consent of the Representative, which consent shall not be unreasonably withheld, issue, directly or indirectly, any press release or other communication or hold any press conference with respect to the Company or its activities or the offering contemplated hereby, other than releases issued in the ordinary course of the Company's business consistent with past practices with respect to the Company's operations or as required by the Rules and Regulations.

(u) The Company will use its best efforts to maintain its registration under the Exchange Act in effect for a period of five (5) years from the Closing Date.

(v) Subsequent to the dates as of which information is given in the Registration Statement and Prospectus and prior to the Closing Date or the Overallotment Closing Date, except as disclosed in or contemplated by the Registration Statement and Prospectus, (i) the Company will not have incurred any material liabilities or obligations, direct or contingent, or entered into any material transactions other than in the ordinary course of business; (ii) there shall not have been any change in the capital stock, funded debt (other than regular repayments of principal and interest on existing indebtedness) or other securities of the Company, any material adverse change in the condition (financial or other), business, operations, income, net worth or properties, including any material loss or damage to the properties of the Company (whether or not such loss is insured against), which could reasonably be expected to have a material adverse affect the condition (financial or other), business, operations, income, net worth or properties of the Company; and (iii) the Company shall not pay or declare any dividend or other distribution on its Common Stock or its other securities or redeem or repurchase any of its Common Stock or other securities.

(w) Except as disclosed in or contemplated by the Registration Statement and Prospectus, the Company, for a period of 12 months following the Closing Date, shall not redeem any of its securities, and shall not pay any dividends or make any other cash distribution in respect of its securities in excess of the amount of the Company's current or retained earnings derived after the Closing Date without obtaining the Representative's prior written consent, which consent shall not be unreasonably withheld. The Representative shall either approve or disapprove such contemplated redemption of securities or dividend payment or distribution within ten (10) business days from the date the Representative receives written notice of the

Company's proposal with respect thereto; a failure of the Representative to respond within the ten (10) business day period shall be deemed approval of the transaction.

(x) The Company maintains and will continue to maintain a system of internal accounting controls sufficient to provide reasonable assurance that: (i) transactions are executed in accordance with management's general or specific authorization; (ii) transactions are recorded as necessary in order to permit preparation of financial statements in accordance with generally accepted accounting principles and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences.

(y) In connection with the redemption of the Warrants, the Representative shall be entitled to a fee of a fee of 5% of the exercise price for each Warrant exercised; provided, however, that the Representative will not be entitled to receive such compensation in warrant exercise transactions in which (i) the market price of Common Stock at the time of exercise is lower than the exercise price of the warrants; (ii) the warrants are held in any discretionary account; (iii) disclosure of compensation arrangements is not made, in addition to the disclosure provided in the Prospectus, in documents provided to holders of warrants at the time of exercise; (iv) the holder of the Warrants has not confirmed in writing that the Representative solicited such exercise; or (v) the solicitation of exercise of the Warrants was in violation of Regulation M promulgated under the Securities Act. Payment of any fee to the Representative hereunder shall be made by the Company within 10 days of the date that any Warrant is properly exercised in accordance with its terms. The Company hereby covenants and agrees that it not employee, retain or hire any other person or broker dealer in connection with the redemption of the Warrants, without the prior written consent of the Representative. The covenants and agreements contained in this clause 5 (y) shall survive termination of this Agreement.

#### 6. PAYMENT OF EXPENSES.

(a) The Company hereby agrees to pay on the Closing Date and the Overallotment Closing Date (to the extent not paid at the Closing Date) all its expenses and fees (other than fees of Underwriters' Counsel, except as provided in (iv) below) incident to the performance of the obligations of the Company under this Agreement, including, without limitation: (i) the fees and expenses of accountants and counsel for the Company; (ii) all costs and expenses incurred in connection with the preparation, duplication, delivery to the Underwriter, printing and filing of the Registration Statement and the Prospectus and any amendments and supplements thereto and the printing, mailing and delivery of this Agreement, the Selected Dealer Agreements, Agreement Between Underwriters, and related documents, including the cost of all copies thereof and of the Preliminary Prospectuses and of the Prospectus and any amendments thereof or supplements thereto supplied to the Underwriters in quantities as hereinabove stated; (iii) the printing, engraving, issuance and delivery of the Securities and Underwriters' Warrant Units including any transfer, issue or other taxes payable thereon; (iv) disbursements and fees of Underwriters' Counsel in connection with the qualification of the Securities under state or foreign securities or "Blue Sky" laws and determination of the status of such securities under legal investment laws, including the costs of printing and mailing the "Preliminary Blue Sky Memorandum," the "Supplemental Blue Sky Memorandum" and "Legal Investments Survey," if any, which Underwriters' Counsel fees (exclusive of filing fees and disbursements) shall not exceed \$20,000, payable as follows: (A) \$10,000 were paid when the first "Blue Sky" filings were made and the remainder will be paid on the Closing Date, and (B)



the amount of "Blue Sky" filing fees that were paid by the Company to Underwriter's Counsel at the time application of the Offering under "Blue Sky" laws was made; (v) the costs and expenses in connection with one information meeting held in New York, New York, one tombstone advertisement in the Wall Street Journal; (vi) fees and expenses of the Transfer and Warrant Agent; (vii) the fees payable to the NASD and expenses of filing with the NASD; and (viii) the fees and expenses incurred in connection with the listing of the Securities on the Nasdaq Stock Market and Boston Stock Exchange. All fees and expenses payable to the Underwriters hereunder shall be payable at the Closing Date or Overallotment Closing Date, as applicable; provided, however, the Company shall pay such fees and costs in advance of the Closing Date if requested by the Underwriter. The Underwriters shall be responsible for all of its own costs of counsel. Any expenses incurred by the Underwriter (excluding any fees payable to the NASD) shall not exceed in the aggregate \$5,000 without the prior written consent of the Company.

(b) If this Agreement is terminated by the Underwriters in accordance with the provisions of Section 7, clauses (v),(vi) or (vii) of Section 12(a) or Section 13, the Company shall reimburse and indemnify the Underwriters for up to \$100,000 out-of-pocket actual, documented expenses paid to unaffiliated third parties and reasonably incurred in connection with the transactions contemplated hereby including the fees and disbursements of counsel for the Underwriters; provided, however, in the event that the Underwriter cannot proceed with the Offering as a result of its inability to comply with NASD net capital or other regulatory reasons, then the Company shall not be required to reimburse the Underwriter for out-of-pocket expenses paid to unaffiliated third parties. Any amounts payable pursuant to this Section 6 (b) shall be reduced by any amount paid by the Company pursuant to Section 6(c) below.

(c) The Company further agree that, in addition to the expenses payable pursuant to subsection (a) of this Section 6, it will pay to the Underwriters a non-accountable expense allowance equal to three percent (3%) of the gross proceeds received by the Company from the sale of the Firm Securities. The Company has advanced \$45,000 to the Underwriters (the "Advance"), to be applied against the non-accountable expense allowance payable to the Underwriters on the Closing Date. Such Advance has been paid as follows: (i) \$35,000 was previously paid by the Company and (ii) \$10,000 was paid to the Representative on the printing of the initial "red herring" prospectus. The Company will pay the non-accountable expense allowance, less the Advance, on the Closing Date by certified or bank cashier's check or, at the election of the Underwriter, by deduction from the proceeds of the offering contemplated herein. In the event the Underwriters elect to exercise the over-allotment option described in Section 2(b) hereof, the Company further agrees to pay to the Underwriters on the Overallotment Closing Date (by certified or bank cashier's check or, at the Underwriters' election, by deduction from the proceeds of the offering) a non-accountable expense allowance equal to three percent (3%) of the gross proceeds received by the Company from the sale of the Overallotment Securities. As required under NASD Rule 2710, other than payments made to unaffiliated third parties, the Advance shall be refunded to the Company in the event that the Offering is not consummated.

7. CONDITIONS OF THE UNDERWRITERS' OBLIGATIONS. The obligations of the Underwriters hereunder shall be subject to the continuing accuracy in all material respects of the representations and warranties of the Company herein as of the Closing Date and the Overallotment Closing Date, if any, as if they had been made on and as of the Closing Date or the Overallotment Closing Date, as the case may be; the accuracy on and as of the Closing Date or Overallotment Closing Date, if any, of the statements of officers of the Company made pursuant to the provisions hereof; and the performance by the Company on and as of the Closing Date and the Overallotment Closing Date, if any, of each of its material covenants and obligations hereunder and to the following further conditions:

(a) The Registration Statement shall have be declared effective by the Commission not later than 5:30 P.M., New York time, on the date of this Agreement or such later date and time as shall be consented to in writing by the Underwriters, and, at the Closing Date and the Overallotment Closing Date, if any, no stop order suspending the effectiveness of the Registration Statement shall have been issued and no proceedings for that purpose shall have been instituted or shall be pending or contemplated to the knowledge of the Company by the Commission and any request on the part of the Commission for additional information shall have been complied with to the reasonable satisfaction of Underwriters' Counsel. If the Company has elected to rely upon Rule 430A of the Rules and Regulations, the price of the Securities and any price-related information previously omitted from the effective Registration Statement pursuant to such Rule 430A shall have been transmitted to the Commission for filing pursuant to Rule 424(b) of the Rules and Regulations within the prescribed time period, and prior to the Closing Date the Company shall have provided evidence satisfactory to the Underwriters of such timely filing, or a post-effective amendment providing such information shall have been promptly filed and declared effective in accordance with the requirements of Rule 430A of the Rules and Regulations.

(b) The Underwriters shall not have advised the Company that the Registration Statement, or any amendment thereto, contains an untrue statement of fact which, in the Representative's opinion, and the reasonable opinion of its counsel is material or omits to state a fact which, in the Representative's reasonable opinion, is material and is required to be stated therein or is necessary to make the statements therein not misleading, or that the Prospectus, or any supplement thereto, contains an untrue statement of fact which, in the Representative's reasonable opinion, or the opinion of its counsel is material, or omits to state a fact which, in the Representative's reasonable opinion, is material and is required to be stated therein or is necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(c) The Company's registration statement pursuant to the Exchange Act on Form 8-A with respect to the Warrants contained in the Units (the "Form 8-A") has been declared effective by the Commission.

(d) At the Closing Date and the Overallotment Closing Date, the Representative shall have received the favorable opinion of Cummings & Lockwood LLC, securities counsel to the Company or other counsel reasonably acceptable to the Representative, dated the Closing Date, or the Overallotment Closing Date, as the case may be, addressed to the Underwriters and in form and substance satisfactory to Underwriters' Counsel, to the effect that:

(i) The Company: (A) has been duly incorporated and is validly existing as a corporation in good standing under the laws of the State of Delaware with full corporate power and authority to own and operate its properties and to carry on its business as set forth in the Registration Statement and Prospectus; (B) the Company is duly licensed or qualified as a foreign corporation in all jurisdictions in which by reason of maintaining an office in such jurisdiction or by owning or leasing real property in such jurisdiction it is required to be so licensed or qualified except where failure to be so qualified or licensed could not reasonably be expected to have a material adverse effect upon the Company; and (C) to counsel's knowledge, the Company has not received any notice of proceedings relating to the revocation or modification of any such license or qualification which revocation or modification could reasonably be expected to have a material adverse effect upon the Company.

(ii) The Registration Statement and the Prospectus and any post-effective amendments or supplements thereto (other than the exhibits, financial statements, schedules and other financial and statistical data included therein, as to which no opinion need be rendered) comply as to form in all material respects with the requirements of the Securities Act and the Rules and Regulations and the conditions for use of a registration statement on Form SB-2 have been satisfied by the Company.

(iii) To counsel's knowledge, except as described in the Prospectus, the Company does not own an interest of a character required to be disclosed in the Registration Statement in any corporation, partnership, joint venture, trust or other business entity;

(iv) The Company has a duly authorized capitalization as set forth in the Prospectus as of the date indicated therein, under the caption "Capitalization." The Securities, the Underwriters' Unit Warrant and the Underwriters' Warrant Units conform or upon issuance will conform in all material respects to all statements with respect thereto contained in the Registration Statement and the Prospectus. The Securities to be sold by the Company hereunder, the Underwriters' Unit Warrant to be sold by the Company under the Underwriters' Unit Warrant Agreement and Underwriters' Warrant Units have been duly authorized and, when issued paid for and delivered in accordance with the terms hereof or thereof, will be validly issued, and conform or upon issuance will conform to the description thereof contained in the Prospectus and the Common Stock included in the Units, when issued paid for and delivered in accordance with the terms hereof, will be fully paid and non-assessable; are not subject to any preemptive or other similar rights of any stockholder of the Company; that, to such counsel's knowledge, the holders of the Securities and Underwriters' Warrant Units shall not be personally liable for the payment of the Company's debts solely by reason of being such holders except as they may be liable by reason of their own conduct or acts; and that the certificates representing the Units, Underwriters' Unit Warrant and Underwriters' Warrant Units are in legal form. Upon delivery of the Units to the Underwriters against payment therefor as provided for in this Agreement, the Underwriters (assuming they are bona fide purchasers within the meaning of the Uniform Commercial Code) will acquire title to the Units, free and clear of all liens, encumbrances, equities, security interests and claims.

(v) The Registration Statement and the Form 8-A have been declared effective under the Act, and, if applicable, the filing of all pricing information has been timely made in the appropriate form under Rule 430A, and, to counsel's knowledge, no stop order suspending the effectiveness of the Registration Statement has been issued and to counsel's knowledge, no proceedings for that purpose have been instituted or are pending or threatened or contemplated under the Securities Act;

(vi) To counsel's knowledge, (A) there are no material contracts or other documents required to be described in the Registration Statement and the Prospectus and filed as exhibits to the Registration Statement other than those described in the Registration Statement and the Prospectus and filed as exhibits thereto, and (B) the descriptions in the Registration Statement and the Prospectus and any supplement or amendment thereto regarding such material contracts or other documents to which the Company is a party or by which it is bound, are accurate in all material respects and fairly represent the information required to be shown by Form SB-2 and the Rules and Regulations;

(vii) This Agreement, the Underwriters' Warrant Agreement and the Transfer Agent Agreement have each been duly and validly authorized, executed and delivered by the Company, and assuming that each is a valid and binding agreement of the parties other

than the Company, constitutes a legally valid and binding agreement of the Company, enforceable as against the Company in accordance with their respective terms (except as such enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or other laws of general application relating to or affecting enforcement of creditors' rights and the application of equitable principles in any action, legal or equitable, and except as rights to indemnity or contribution may be limited by applicable law or pursuant to public policy).

(viii) Neither the execution or delivery by the Company of this Agreement, the Underwriters' Warrant Agreement or the Transfer Agent Agreement, nor its performance hereunder or thereunder, nor its consummation of the transactions contemplated herein or therein, nor the issuance of the Securities pursuant to this Agreement, conflicts with or will conflict with or results or will result in any material breach or violation of any of the terms or provisions of, or constitutes or will constitute a material default under, or result in the creation imposition of any material lien, charge, claim, encumbrance, pledge, security interest, defect or other restriction of any kind whatsoever upon, any property or assets (tangible or intangible) of the Company except to the extent such event could not reasonably be expected to have a material adverse effect upon the Company pursuant to the terms of, (A) the Certificate of Incorporation or By-Laws of the Company, (B) to the knowledge of such counsel, any indenture, mortgage, deed of trust, voting trust agreement, stockholders agreement, note, loan or credit agreement that is material to the Company to which the Company is a party or by which it is bound or to which its properties or assets (tangible or intangible) are subject, or (C) to the knowledge of such counsel, and except to the extent it would not have a material adverse effect on the Company, any statute, judgment, decree, order, rule or regulation applicable to the Company or any arbitrator, court, regulatory body or administrative agency or other governmental agency or body, having jurisdiction over the Company or any of its respective activities or properties.

(ix) No consent, approval, authorization or order and no filing with, any court, regulatory body, government agency or other body (other than such as may be required under state securities laws, as to which no opinion need be rendered) is required in connection with the issuance by the Company of the Securities, the performance of this Agreement and the Underwriters' Warrant Agreement by the Company, and the taking of any action by the Company contemplated hereby or thereby, which has not been obtained;

(x) Except as described in the Prospectus, to the knowledge of such counsel, the Company is not in breach of, or in default under, any material term or provision of any indenture, mortgage, installment sale agreement, deed of trust, lease, voting trust agreement, stockholders' agreement, note, loan or credit agreement and, to the knowledge of counsel, the Company is not in violation of any material term or provision of its Certificate of Incorporation or By-Laws or in violation of any material franchise, license, permit, judgment, decree, order, statute, rule or regulation material to the Company's business;

(xi) The statements in the Prospectus under the captions "DESCRIPTION OF BUSINESS," "MANAGEMENT," "PRINCIPAL STOCKHOLDERS," "CERTAIN TRANSACTIONS," "DESCRIPTION OF CAPITAL STOCK," "SHARES ELIGIBLE FOR FUTURE SALE" and "RISK FACTORS" have been reviewed by such counsel, and only insofar as they refer to statements of law, descriptions of statutes, rules or regulations or legal conclusions, are correct in all material respects;

(xii) To such counsel's knowledge, except as described in the Prospectus or as could not reasonably be expected to have a material adverse effect on the Company, no person, corporation, trust, partnership, association or other entity holding securities

of the Company has the contractual right to include and/or register any securities of the Company in the Registration Statement, require the Company to file any registration statement or, if filed, to include any security in such registration statement; and

(xiii) Upon consummation of the transactions contemplated hereby, the Securities will be eligible for listing on the Nasdaq SmallCap Stock Market and Boston Stock Exchange.

In addition, such counsel shall state that such counsel has participated in meetings and teleconferences with officers of the Company, representatives of the independent public accountants for the Company and representatives of the Underwriters at which the contents of the Registration Statement, the Prospectus and related matters were discussed and, although such counsel is not passing upon and does not assume any responsibility for the accuracy, completeness or fairness of the statements contained in the Registration Statement and the Prospectus and made no independent check or verification thereof, on the basis of the foregoing, no facts have come to the attention of such counsel which lead them to believe that either the Registration Statement or any amendment thereto at the time such Registration Statement or amendment became effective or the Prospectus as of the date of such opinion contained any untrue statement of a material fact or omitted to state a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances under which they were made, not misleading (it being understood that such counsel need make no statement with respect to the financial statements and schedules and other financial and statistical data included in the Registration Statement or Prospectus or with respect to statements or omissions made therein in reliance upon information furnished in writing to the Company on behalf of any Underwriter expressly for use in the Registration Statement or the Prospectus).

In rendering such opinion, such counsel may rely, (A) as to matters involving the application of laws other than the laws of the United States, the corporate laws of Delaware and New York to the extent such counsel deems proper and to the extent specified in such opinion, if at all, upon an opinion or opinions (in form and substance reasonably satisfactory to Underwriters' Counsel) of other counsel reasonably acceptable to Underwriters' Counsel, familiar with the applicable laws of such other jurisdictions, (B) as to matters of fact, to the extent they deem proper, on certificates and written statements of responsible officers of the Company and certificates or other written statements of officers of departments of various jurisdictions having custody of documents respecting the corporate existence or good standing of the Company; provided, that copies of any such statements or certificates shall be delivered to Underwriters' Counsel if requested, and (C) upon the opinions of (i) \_\_\_\_\_, as patent counsel to the Company with respect to patent matters and (ii) \_\_\_\_\_, as Food and Drug Act ("FDA") counsel with respect to FDA matters. The form of the opinions of the aforementioned counsels are attached hereto as Exhibits A and B, respectively. The opinions of such counsel for the Company shall state that the opinion of any such other counsel is in form satisfactory to such counsel and, in their opinion, the Underwriters and they are justified in relying thereon, or in the alternative, such opinions may be addressed directly to the Underwriters.

(e) At the Overallotment Closing Date, if any, the Underwriters shall have received the favorable opinion of counsel to the Company, each dated the Overallotment Closing Date, addressed to the Underwriters and in form and substance satisfactory to Underwriters' Counsel confirming as of the Overallotment Closing Date the statements made by such firm, in their opinion delivered on the Closing Date.

(f) On or prior to each of the Closing Date and the Overallotment Closing Date, if any, Underwriters' Counsel shall have been furnished such documents, certificates and other legal opinions (including, without limitation, legal opinions related to patent, trademark or Food and Drug matters) as they may reasonably require and request for the purpose of enabling them to review or pass upon the matters referred to in subsection (d) of this Section 6, or in order to evidence the accuracy, completeness or satisfaction of any of the representations, warranties or conditions herein contained.

(g) Prior to the Closing Date and the Overallotment Closing Date, if any: (i) there shall have been no material adverse change nor development involving a prospective change in the condition, financial or otherwise, prospects or the business activities of the Company, whether or not in the ordinary course of business, from the latest dates as of which such condition is set forth in the Registration Statement and Prospectus; (ii) except as may be disclosed in the Registration Statement or the Prospectus, there shall have been no transaction, not in the ordinary course of business, entered into by the Company, from the latest date as of which the financial condition of the Company is set forth in the Registration Statement and Prospectus which could reasonably be expected to have a material adverse effect on the Company; (iii) the Company shall not be in material default under any provision of any instrument relating to any outstanding indebtedness for money borrowed, except as described in the Prospectus; (iv) no material amount of the assets of the Company shall have been pledged or mortgaged, except as set forth in the Registration Statement and Prospectus; (v) no action, suit or proceeding, at law or in equity, shall have been pending or to its knowledge threatened against the Company, or affecting any of its properties or businesses before or by any court or federal, state or foreign commission, board or other administrative agency wherein an unfavorable decision, ruling or finding could reasonably be expected to have a material adverse effect on the business, operations, prospects or financial condition of the Company, except as set forth in the Registration Statement and Prospectus; and (vi) no stop order shall have been issued under the Securities Act and no proceedings therefor shall have been initiated, threatened or contemplated by the Commission.

(h) At the Closing Date and the Overallotment Closing Date, if any, the Underwriters shall have received a certificate of the Company signed by the principal executive officer and by the chief financial or chief accounting officer of the Company, dated the Closing Date or Overallotment Closing Date, as the case may be, to the effect that:

(i) The representations and warranties of the Company in this Agreement are, in all material respects, true and correct, as if made on and as of the Closing Date or the Overallotment Closing Date, as the case may be, and the Company has complied with all agreements and covenants and satisfied all conditions contained in this Agreement on its part to be performed or satisfied at or prior to such Closing Date or Overallotment Closing Date, as the case may be;

(ii) No stop order suspending the effectiveness of the Registration Statement has been issued, and no proceedings for that purpose have been instituted or are pending or, to the best of each of such person's knowledge, are contemplated or threatened under the Act;

(i) By the Effective Date, the Representative shall have received clearance from NASD as to the amount of compensation allowable or payable to the Underwriters, as described in the Registration Statement.

(j) At the time this Agreement is executed, the Underwriters shall have received a letter, dated such date, addressed to the Underwriters in form and substance satisfactory in all respects (including the non-material nature of the changes or decreases, if any, referred to in clause (iii) below) to the Underwriters, from Eisner LLP:

(i) confirming that they are independent public accountants with respect to the Company within the meaning of the Securities Act and the applicable Rules and Regulations;

(ii) stating that it is their opinion the financial statements included in the Registration Statement comply as to form in all material respects with the applicable accounting requirements of the Securities Act and the Rules and Regulations;

(iii) stating that, on the basis of a limited review which included a reading of the latest available unaudited interim financial statements of the Company (with an indication of the date of the latest available unaudited interim financial statements), a reading of the latest available minutes of the stockholders and board of directors and the various committees of the boards of directors of the Company, consultations with officers and other employees of the Company responsible for financial and accounting matters and other specified procedures and inquiries, nothing has come to their attention that would lead them to believe that (A) the unaudited financial statements of the Company included in the Registration Statement do not comply as to form in all material respects with the applicable accounting requirements of the Securities Act and the Rules and Regulations or are not fairly presented in conformity with generally accepted accounting principles applied on a basis substantially consistent with that of the audited financial statements of the Company included in the Registration Statement, or (B) at a specified date not more than five (5) business days prior to the Effective Date of the Registration Statement, there has been any change in the capital stock or long-term debt of the Company, or any decrease in the stockholders' equity or net current assets or net assets of the Company as compared with amounts shown in the financial statements included in the Registration Statement, other than as set forth in or contemplated by the Registration Statement and changes in the ordinary course of business, or, if there was any change or decrease, setting forth the amount of such change or decrease, and (C) during the period from December 31, 2002, to a specified date not more than five (5) business days prior to the Effective Date, there was any decrease in net revenues, net earnings or increase in net loss per common share of the Company, in each case as compared with the corresponding period beginning January 1, 2001 other than as set forth in or contemplated by the Registration Statement and changes or increases in the ordinary course of business, or, if there was any such increase, setting forth the amount of such increase;

(iv) stating that they have compared specific dollar amounts, numbers of Securities, percentages of revenues and earnings, statements and other financial information pertaining to the Company set forth in the Prospectus in each case to the extent that such amounts, numbers, percentages, statements and information may be derived from the general accounting records, including work sheets, of the Company and excluding any questions requiring an interpretation by legal counsel, with the results obtained from the application of specified readings, inquiries and other appropriate procedures (which procedures do not constitute an examination in accordance with generally accepted auditing standards) set forth in the letter and found them to be in agreement; and

(v) statements as to such other matters incident to the transaction contemplated hereby as the Underwriters may reasonably request.

(k) At the Closing Date and the Overallotment Closing Date, if any, the Underwriters shall have received from Eisner LLP, a letter, dated as of the Closing Date, or Overallotment Closing Date, as the case may be, to the effect that they reaffirm that statements made in the letter furnished pursuant to Subsection (j) of this Section, except that the specified date referred to shall be a date not more than five (5) business days prior to Closing Date or the Overallotment Closing Date, as applicable, and if the Company has elected to rely on Rule 430A of the Rules and Regulations, to the further effect that they have carried out procedures as specified in clause (iii) of Subsection (j) of this Section with respect to certain amounts, percentages and financial information as specified by the Underwriters and deemed to be a part of the Registration Statement pursuant to Rule 430A(b) and have found such amounts, percentages and financial information to be in agreement with the records specified in such clause (iii).

(l) On the Closing Date and the Overallotment Closing Date, if any, there shall have been duly tendered to the Underwriters for their accounts the appropriate number of Securities against payment therefor.

(m) No order suspending the sale of the Securities in any jurisdiction designated by the Representative pursuant to subsection (e) of Section 4 hereof shall have been issued on either the Closing Date or the Overallotment Closing Date, if any, and no proceedings for that purpose shall have been instituted or, to the Representative's knowledge or that of the Company, shall be contemplated.

(n) On or prior to the Effective Date, the Company shall cause its securities counsel to deliver to the Representative an opinion of counsel advising the Representative of the ability of the Underwriters to participate in secondary trading of the shares of Common Stock and Warrants.

(o) On or prior to the Effective Date, the Company shall have received notification, in form and substance satisfactory to the Representative, from the Nasdaq Stock Market that it has withdrawn any outstanding notices regarding delisting of the Company's Common Stock and that following the Closing of the Offering the Company's Common Stock shall not be subject to delisting proceedings.

If any condition to the Underwriters' obligations hereunder to be fulfilled prior to or at the Closing Date or the Overallotment Closing Date, as the case may be, is not so fulfilled, the Underwriters may terminate this Agreement or, if the Underwriters so elects, it may waive any such conditions which have not been fulfilled or extend the time for their fulfillment.

## 8. INDEMNIFICATION

(a) The Company agrees to indemnify and hold harmless each of the Underwriters, including specifically each person who controls the Underwriters ("controlling person") within the meaning of Section 15 of the Securities Act or Section 20(a) of the Exchange Act, against any and all losses, claims, damages, reasonable expenses or liabilities, joint or several (and actions in respect thereof), whatsoever (including but not limited to any and all expenses whatsoever reasonably incurred in investigating, preparing or defending against any litigation, commenced or threatened, or any claim whatsoever), as such are incurred, to which the Underwriters or such controlling person may become subject under the Act, the Exchange Act or any other statute or at common law or otherwise or under the laws of foreign countries arising



out of or based upon any untrue statement or alleged untrue statement of a material fact contained (i) in any Preliminary Prospectus (except that the indemnification contained in this paragraph with respect to any Preliminary Prospectus shall not inure to the benefit of the Underwriters or to the benefit of any controlling person the Underwriters on account of any loss, claim, damage, liability or expense arising from the sale of the Firm Securities by the Underwriters to any person if a copy of the Prospectus, as amended or supplemented, shall not have been delivered or sent to such person within the time required by the Securities Act, and the untrue statement or alleged untrue statement or omission or alleged omission of a material fact contained in such Preliminary Prospectus was corrected in the Prospectus, as amended and supplemented, and such correction would have eliminated the loss, claim, damage, liability or expense), the Registration Statement or the Prospectus (as from time to time amended and supplemented); (ii) in any post-effective amendment or amendments or any new registration statement and prospectus in which is included Securities of the Company issued or issuable upon exercise of the Underwriters' Unit Purchase Warrant; or (iii) in any application or other document or written communication (in this Section 8 collectively called "application") executed by the Company or based upon written information furnished by the Company in any jurisdiction in order to qualify the Securities under the securities laws thereof or filed with the Commission, any state securities commission or agency, Nasdaq Stock Market, Inc. or any other securities exchange; or the omission or alleged omission therefrom of a material fact required to be stated therein or necessary to make the statements therein not misleading (in the case of the Prospectus, in the light of the circumstances under which they were made), unless in any case above such statement or omission was made in reliance upon and in conformity with written information furnished to the Company with respect to any Underwriters by or on behalf of such Underwriters, through Underwriters' Counsel, directly or through the Representative, expressly for use in any Preliminary Prospectus, the Registration Statement or Prospectus, or any amendment thereof or supplement thereto, in any post-effective amendment, new registration statement or prospectus or in any application, as the case may be.

The indemnity agreement in this subsection (a) shall be in addition to any liability which the Company may have at common law or otherwise.

(b) The Underwriters, severally but not jointly, hereby indemnify and hold harmless the Company, each of its directors, each of its officers who has signed the Registration Statement, its agents and each other person, if any, who controls the Company within the meaning of the Securities Act, to the same extent as the foregoing indemnity from the Company to the Underwriters but only with respect to statements or omissions, if any, made in any Preliminary Prospectus, the Registration Statement or Prospectus or any amendment thereof or supplement thereto, any post-effective amendment, new registration statement or prospectus, or in any application made in reliance upon, and in conformity with, written information furnished to the Company with respect to the Underwriters by or on behalf of such Underwriters, through Underwriters' counsel or the Representative expressly for use in any Preliminary Prospectus, the Registration Statement or Prospectus or any amendment thereof or supplement thereto or in any post-effective amendment, new registration statement or prospectus, or in any application, directly related to the transactions effected by the Underwriters in connection with this Offering; provided that such written information or omissions only pertain to disclosures in the Preliminary Prospectus, the Registration Statement or Prospectus or any amendment thereof or supplement thereto, in any post-effective amendment, new registration statement or prospectus or in any such application. The Company acknowledges that the statements with respect to the public offering of the Firm Securities set forth under the heading "Underwriting" and the stabilization legend and the last paragraph of the cover page in the Prospectus have been furnished by the Underwriters expressly for use therein and any information furnished by or on

behalf of the Underwriters filed in any jurisdiction in order to qualify the Securities under state securities laws or filed with the Commission, the NASD or any securities exchange constitute the only information furnished in writing by or on behalf of the Underwriters for inclusion in the Preliminary Prospectus, Registration Statement or Prospectus or any amendment thereof or supplement thereto or in any post-effective amendment and the Underwriters hereby confirm that such statements and information are true and correct in all material respects on the date hereof and do not omit a material fact required to be stated therein or necessary to make the statements therein not misleading, and shall be so on each Closing Date and Overallotment Closing Date.

(c) Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, suit or proceeding, such indemnified party shall, if a claim in respect thereof is to be made against one or more indemnifying parties under this Section 8, notify each party against whom indemnification is to be sought in writing of the commencement thereof (but the failure so to notify an indemnifying party shall not relieve it from any liability which it may have under this Section 7 except to the extent that it has been prejudiced in any material respect by such failure or from any liability which it may have otherwise). In case any such action is brought against any indemnified party, and it notifies an indemnifying party or parties of the commencement thereof, the indemnifying party or parties will be entitled to participate therein, and to the extent it or they may elect by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, the indemnifying party may assume the defense thereof with counsel reasonably satisfactory to such indemnified party. Notwithstanding the foregoing the indemnified party or parties shall have the right to employ its or their own counsel in any such case but the fees and expenses of such counsel shall be at the expense of such indemnified party or parties unless (i) the employment of such counsel shall have been authorized in writing by the indemnifying parties in connection with the defense of such action at the expense of the indemnifying party, (ii) the indemnifying parties shall not have employed counsel reasonably satisfactory to such indemnified party to have charge of the defense of such action within a reasonable time after notice that the indemnifying party or parties have elected to assume the defense thereof, or (iii) such indemnifying party or parties shall have reasonably concluded, based on an opinion of counsel reasonably satisfactory to the indemnifying party or parties, a copy of which has been delivered to the indemnifying party or parties, that there may be defenses available to it or them that are different from or additional to those available to one or all of the indemnifying parties (in which case the indemnifying parties shall not have the right to direct the defense of such action on behalf of the indemnified party or parties), in any of which events such fees and expenses of one additional counsel shall be borne by the indemnifying parties. In no event shall the indemnifying parties be liable for fees and expenses of more than one counsel (in addition to any local counsel) separate from their own counsel for all indemnified parties in connection with any one action or separate but similar or related actions in the same jurisdiction arising out of the same general allegations or circumstances. Anything in this Section 8 to the contrary notwithstanding, an indemnifying party shall not be liable for any settlement of any claim or action effected without its written consent; provided however, that such consent was not unreasonably withheld.

(d) In order to provide for just and equitable contribution in any case in which (i) an indemnified party makes claim for indemnification pursuant to this Section 8, but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case notwithstanding the fact that the express provisions of this Section 8 provide for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any indemnified party, then each indemnifying

party shall contribute to the amount paid as a result of such losses, claims, damages, expenses or liabilities (or actions in respect thereof) (A) in such proportion as is appropriate to reflect the relative benefits received by each of the contributing parties, on the one hand, and the party to be indemnified on the other hand, from the offering of the Securities or (B) if the allocation provided by clause (A) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (A) above but also the relative fault of each of the contributing parties, on the one hand, and the party to be indemnified on the other hand in connection with the untrue or alleged untrue statement or omission or alleged omission that resulted in such losses, claims, damages, expenses or liabilities, as well as any other relevant equitable considerations. In any case where the Company is the contributing party and the Underwriters are the indemnified party the relative benefits received by the Company on the one hand, and the Underwriters, on the other, shall be deemed to be in the same proportion as the total net proceeds from the offering of the Securities (before deducting expenses) bear to the total underwriting discounts and commissions received by the Underwriters hereunder, in each case as set forth in the table on the Cover Page of the Prospectus. Relative fault 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 Company or by the Underwriters and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue or alleged untrue statement or omission or alleged omission. The amount paid or payable by an indemnified party as a result of the losses, claims, damages, expenses or liabilities (or actions in respect thereof) referred to above in this subdivision (d) shall be deemed to include any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim. Notwithstanding the provisions of this subsection (d), no Underwriter shall be required to contribute any amount in excess of the amount by which the total price at which the Securities underwritten by it and distributed to the public were offered to the public exceeds the amount of any damages which such Underwriter has otherwise been required to pay by reason of such untrue or alleged untrue statement or omission or alleged omission. No person guilty 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. For purposes of this Section 8, each person, if any, who controls the Company within the meaning of the Securities Act, each officer of the Company who has signed the Registration Statement, and each director of the Company shall have the same rights to contribution as the Company, subject in each case to this subparagraph (d). Any party entitled to contribution will, promptly after receipt of notice of commencement of any action, suit or proceeding against such party in respect of which a claim for contribution may be made against another party or parties under this subparagraph (d), notify such party or parties from whom contribution may be sought, but the omission so to notify such party or parties shall not relieve the party or parties from whom contribution may be sought from any obligation it or they may have hereunder or otherwise than under this subparagraph (d), or to the extent that such party or parties were not adversely affected by such failure to give notice. The contribution agreement set forth above shall be in addition to any liabilities which any indemnifying party may have at common law or otherwise.

9. FINDERS. The Company and the Representative each represents that no person has acted as a finder in connection with the transactions contemplated herein and the Representative and the Company agree to indemnify, on the terms set forth in Section 8 hereof, each other with respect to any claim for a finder's fee in connection with the Offering.

10. REPRESENTATIONS AND AGREEMENTS TO SURVIVE DELIVERY. All representations, warranties and agreements contained in this Agreement or contained in certificates of officers of

the Company submitted pursuant hereto, shall be deemed to be representations, warranties and agreements at the Closing Date and the Overallotment Closing Date, if any, and such representations, warranties and agreements of the Company and the indemnity agreements contained in Section 7 hereof, shall remain operative and in full force and effect regardless of any investigation made by or on behalf of the Underwriters, the Company, or any controlling person, and shall survive termination of this Agreement or the issuance and delivery of the Securities to the Underwriters.

#### 11. EFFECTIVE DATE.

This Agreement shall become effective no later than 10:00 a.m. New York City Time, on the next full business day following the date on which the Registration Statement becomes effective, or at such earlier time as the Representative, in its discretion, shall release the Securities for the sale to the public. For purposes of this Section 11, the Securities to be purchased hereunder shall be deemed to have been so released for sale upon the earlier of dispatch by the Representative of telegrams to securities dealers releasing such Securities for offering or the release by the Representative for publication of the first newspaper advertisement which is subsequently published relating to the Securities.

#### 12. TERMINATION; SUBSTITUTION OF UNDERWRITERS

(a) The Representative shall have the right to terminate this Agreement if: (i) trading in securities generally on the New York Stock Exchange or the Nasdaq National Market or in the over-the-counter market, or trading in any securities of the Company on any exchange or in the over-the-counter market, shall have been suspended or minimum prices shall have been established on any such exchange or such market by the Commission, by such exchange or by any other regulatory body or governmental authority having jurisdiction; (ii) a banking moratorium shall have been declared by Federal or state authorities of the United States; (iii) the United States shall have become engaged in hostilities, there shall have been a significant escalation in hostilities involving the United States or there shall have been a declaration of a national emergency or war by the United States; (iv) there shall have occurred such a material adverse change in general economic, political or financial conditions of (or the effect of international conditions on the financial markets in the United States shall be such) as to make it, in the responsible judgment of the Representative, impracticable or inadvisable to proceed with the public offering or delivery of the Securities on the terms and in the manner contemplated in the Prospectus; (v) any materially adverse change shall have occurred in the reasonable judgment of the Representative, in the financial condition, business, prospects, or obligations of the Company; (vi) the Company cannot expeditiously proceed with the Offering, including without limitation, as a result of actions taken or not taken by the Company; or (vii) any representations, warranties or covenants of the Company are not materially correct or with which the Company cannot comply.

(b) Notwithstanding any contrary provision contained in this Agreement, any election hereunder or any termination of this Agreement (including, without limitation, pursuant to Sections 12 and 13 hereof), and whether or not this Agreement is otherwise carried out, the provisions of Section 6(b) shall not be in any way affected by such election or termination or failure to carry out the terms of this Agreement or any part hereof.

(c) If any Underwriter or Underwriters shall default in its or their obligations to purchase Units hereunder and the aggregate numbers of Units which such defaulting Underwriter or Underwriters agreed but failed to purchase does not exceed twenty percent (20%) of the total number of Units underwritten, the other Underwriters shall be obligated severally, in proportion to their respective commitments hereunder, to purchase the Units which such defaulting Underwriter or Underwriters agreed but failed to purchase. If any Underwriter or Underwriters shall so default and the aggregate number of Units with respect to which such default or defaults occur is more than twenty percent (20%)

of the total number of Units underwritten and arrangements satisfactory to the Underwriters and the Company for the purchase of such Units by other persons are not made within forty-eight (48) hours after such default, this Agreement shall terminate.

If the remaining Underwriters or substituted Underwriters are required hereby or agree to take up all or part of the Units of a defaulting Underwriter or Underwriters as provided in this Section 12, (i) the Company shall have the right to postpone the Closing Date for a period of not more than five (5) full business days in order that the Company may effect whatever changes may thereby be made necessary in the Registration Statement or the Prospectus, or in any other documents or arrangements, and the Company agrees promptly to file any amendments to the Registration Statement or supplements to the Prospectus which may thereby be made necessary, and (ii) the respective number of Units to be purchased by the remaining Underwriters or substituted Underwriters shall be taken as the basis of their underwriting obligation for all purposes of this Agreement. Nothing herein contained shall relieve any defaulting Underwriter of its liability to the Company or the other Underwriters for damages occasioned by its default hereunder. Any termination of this Agreement pursuant to this Section 12 shall be without liability on the part of any non-defaulting Underwriters or the Company, except for expenses to be paid or reimbursed pursuant to Section 6 and except for the provisions of Section 8.

13. DEFAULT BY THE COMPANY. If the Company shall fail at the Closing Date or the Overallotment Closing Date, as applicable, to sell and deliver the number of Securities which it is obligated to sell hereunder on such date, then this Agreement shall terminate (or, if such default shall occur with respect to any Overallotment Securities to be purchased on the Overallotment Closing Date, the Underwriters may at the Underwriters' option, by notice from the Underwriters to the Company, terminate the Underwriters' obligations to purchase Securities from the Company on such date) without any liability on the part of any non-defaulting party other than pursuant to Section 6 and Section 8 hereof. No action taken pursuant to this Section shall relieve the Company from liability, if any, in respect of such default.

14. NOTICES. All notices and communications hereunder, except as herein otherwise specifically provided, shall be in writing and shall be deemed to have been duly given if mailed or transmitted by any standard form of telecommunication. Notices to the Underwriters shall be directed to the Representative at Roan/Meyers Associates, L.P., 17 State Street, New York, NY 10004, Attention: Bruce Meyers, with a copy to Goldstein & DiGioia, LLP, 45 Broadway, 11th Floor, New York, NY 10006, Attention: Brian C. Daughney, Esq. Notices to the Company shall be directed to the Company at 1100 Summer Street, Stamford, CT 06905, Attention: Mr. M.S. Koly, with a copy to Cummings & Lockwood LLC, Four Stamford Plaza, 107 Elm Street, Stamford, CT 06902, Attention: Paul G. Hughes, Esq.

15. PARTIES. This Agreement shall inure solely to the benefit of and shall be binding upon, the several Underwriters, the Company and the controlling persons, directors and officers referred to in Section 7 hereof, and their respective successors, legal representatives and assigns, and no other person shall have or be construed to have any legal or equitable right, remedy or claim under or in respect of or by virtue of this Agreement or any provisions herein contained. No purchaser of Securities from any Underwriter shall be deemed to be a successor by reason merely of such purchase.

16. GOVERNING LAW/CONSTRUCTION/JURISDICTION.

(a) This Agreement shall be construed in accordance with the laws of the State of Delaware, without giving effect to conflict of laws.

(b) The Company and the Underwriters (a) agree that any legal suit, action or proceeding arising out of or relating to this Agreement shall be instituted exclusively in New York State Supreme Court, County of New York, or in the United States District Court for the Southern District of New York, (b) waive any objection which they may have now or hereafter to the venue of any such suit, action or proceeding, and (c) irrevocably consent to the jurisdiction of the New York State Supreme Court, County of New York and the United States District Court for the Southern District of New York in any such suit, action or proceeding. Each of the Company and the Underwriters further agree to accept and acknowledge service of any and all process which may be served in any suit, action or proceeding in the New York State Supreme Court or the United States District Court for the Southern District of New York, and agree that service of process upon them mailed by certified mail to their respective addresses shall be deemed in every respect effective service of process upon them in any such suit, action or proceeding. In the event of litigation between the parties arising hereunder, the prevailing party shall be entitled to costs and reasonable attorney's fees.

17. COUNTERPARTS. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which taken together shall be deemed to be one and the same instrument.

18. WAIVER. The waiver by either party of the breach of any provision of this Agreement by the other party shall not operate or be construed as a waiver of any subsequent breach.

19. ASSIGNMENT. Neither party hereto may transfer or assign this Agreement without prior written consent of the other party.

20. TITLES AND CAPTIONS. All article, section and paragraph titles or captions contained in this Agreement are for convenience only and shall not be deemed part of the context nor affect the interpretation of this Agreement.

21. PRONOUNS AND PLURALS. All pronouns and any variations thereof shall be deemed to refer to the masculine, feminine, neuter, singular or plural as the identity of the Person or Persons may require.

22. ENTIRE AGREEMENT. This Agreement contains the entire understanding between and among the parties and supersedes any prior understandings and agreements among them respecting the subject matter of this Agreement.

[remainder of page left blank- signature page appears next]

If the foregoing correctly sets forth our understanding, please so indicate in the space provided below for that purpose, whereupon this letter and your acceptance shall constitute a binding agreement among us.

Very truly yours,

DELCATH SYSTEMS, INC.

By: \_\_\_\_\_  
Name: M.S. Koly  
Title: Chief Executive Officer

Confirmed and accepted as of the date first above written

ROAN/MEYERS ASSOCIATES, L.P.,  
as Representative of the Underwriters  
BY: MEYERS/JANSSEN SECURITIES CORP.,  
General Partner

By: \_\_\_\_\_  
Name: Bruce Meyers  
Title: President

SCHEDULE I

Underwriters

-----

Roan/Meyers Associates, L.P.



SCHEDULE II

Warrant Agent

-----

American Stock Transfer & Trust Company

DEL CATH SYSTEMS, INC.

AND

ROAN/MEYERS ASSOCIATES, LP

UNDERWRITER'S UNIT OPTION AGREEMENT

Dated as of \_\_\_\_\_, 2003

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UNDERWRITER'S UNIT WARRANT AGREEMENT dated as of \_\_\_\_\_, 2003 between DELCATH SYSTEMS, INC., a Delaware corporation (the "Company") and ROAN/MEYERS ASSOCIATES, LP, a New York limited partnership (hereinafter referred to as the "Representative").

W I T N E S S E T H :

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WHEREAS, pursuant to the terms of an Underwriting Agreement dated as of \_\_\_\_\_, 2003 (the "Underwriting Agreement") between the Representative as representative of the underwriters names on Schedule I therein (the "Underwriters"), the Underwriters have severally agreed to purchase, in a public offering under the Securities Act of 1933, as amended (the "Act") on a "firm commitment" basis (the "Public Offering"), \_\_\_\_\_ units (the "Public Units") at a public offering price of \$\_\_\_\_ per Public Unit, each Public Unit consisting of five (5) shares of the Company's common stock, par value \$.01 per share (the "Common Stock") ( each share of Common Stock constituting part of a Public Unit, referred to as the "Public Shares"), and five (5) Redeemable Common Stock Purchase Warrants each to purchase one (1) share of Common Stock ("Public Warrant"); and

WHEREAS, as additional consideration to the Representative for its services pursuant to the Underwriting Agreement, the Company has agreed to issue to the Representative a warrant ("Representative's Unit Warrant) to purchase up to an aggregate of \_\_\_\_\_ Units (the "Representative's Units") with an exercise price equal to \$\_\_\_\_\_ [165% of the Public Unit offering price], each consisting of five shares of Common Stock ("Representative's Shares") and five warrants, each to purchase one share of Common Stock ("Representative's Warrants"), having the same terms as the Public Warrants except that the exercise price of the Representative's Warrants shall be exercisable at \$\_\_\_\_\_ [165% of the public offering price of the Public Warrants]; and

NOW, THEREFORE, in consideration of the premises, the payment by the Representative to the Company of an aggregate of \_\_\_\_\_ Dollars (\$\_\_\_\_)[\$.001 per Representative Unit], the agreements herein set forth and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. GRANT. The Holder is hereby granted the right to purchase, at any time from \_\_\_\_\_, 2004 [one year from the Effective Date] until 5:00 P.M., New York time, on \_\_\_\_\_, 2008 [ five



years from the Effective Date], up to an aggregate of \_\_\_\_\_ Representative's Units at an initial exercise price (subject to adjustment as provided in Section 8 hereof) of 165% of the public offering price of the Public Units).

2. REPRESENTATIVE'S UNIT WARRANT CERTIFICATES. The Representative's warrant certificates (the "Representative's Warrant Certificates") delivered and to be delivered pursuant to this Agreement shall be in the form set forth in Exhibit A, attached hereto and made a part hereof, with such appropriate insertions, omissions, substitutions, and other variations as required or permitted by this Agreement.

3. EXERCISE OF REPRESENTATIVE'S REPRESENTATIVE'S WARRANTS. The Representative's Unit Warrants initially are exercisable at an aggregate initial exercise price (subject to adjustment as provided in Section 8 hereof) per Representative's Unit, as set forth in Section 6 hereof payable by certified or official bank check in New York Clearing House funds, subject to adjustment as provided in Section 8 hereof. Upon surrender at the Company's principal offices (presently located at 1100 Summer Street, Stamford, CT 06905), of an Representative's Unit Warrant with the annexed Form of Election to Purchase duly executed, together with payment of the Purchase Price (as hereinafter defined) for the number of Representative's Units purchased, the registered holder of an Representative's Unit Warrant ("Holder" or "Holders") shall be entitled to receive a certificate or certificates for the Representative's Units so purchased. The shares of Common Stock and the Representative's Warrants comprising the Representative's Units shall consist of the same shares of Common Stock and Public Warrants as being sold to the public in the Public Offering, shall contain the same terms and conditions and rights; provided, however, the Representative's Warrant obtained upon exercise of the Representative's Unit Warrant shall have an exercise price of 165% of the Public Warrants. The purchase rights represented by each Representative's Unit Warrant are exercisable at the option of the Holder thereof, in whole or in part. In the case of the purchase of less than all the Representative's Units purchasable under any Representative's Unit Warrant, the Company shall cancel the Representative's Unit Warrant upon the surrender thereof and shall execute and deliver a new Representative's Unit Warrant of like tenor for the balance of the Representative's Units purchasable thereunder.

4. ISSUANCE OF CERTIFICATES. Upon the exercise of the Representative's Unit Warrant, the issuance of certificates for the Representative's Warrants and Representative's Shares or other securities, properties or rights underlying such Representative's Unit Warrant, shall be made (and in any event within five (5) business days thereafter) without charge to the Holder thereof

including, without limitation, any tax which may be payable in respect of the issuance thereof, and such certificates shall (subject to the provisions of Sections 5 and 7 hereof) be issued in the name of, or in such names as may be directed by, the Holder thereof; provided, however, that the Company shall not be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of any such certificates in a name other than that of the Representative and the Company shall not be required to issue or deliver such certificates unless or until the person or persons requesting the issuance thereof shall have paid to the Company the amount of such tax or shall have established to the satisfaction of the Company that such tax has been paid.

The Representative's Unit Warrants and the certificates representing the Representative's Warrants and Representative's Shares issuable upon exercise of the Representative's Unit Purchase Warrant shall be executed on behalf of the Company in the same manner as the certificates for the Public Shares and Public Warrants. The Representative's Unit Warrants shall be dated the date of the execution by the Company upon initial issuance, division, exchange, substitution or transfer. The certificates representing the Representative's Shares and Representative's Warrants issuable upon exercise of the Representative's Unit Warrants shall be identical in form and substance to the Public Shares and Public Warrants, including the terms of redemption for the Warrants sold to the public; provided, however, the exercise price of the Representative's Warrants shall be \$\_\_\_\_\_ [165% of the exercise price of the Public Warrants].

5. RESTRICTION ON TRANSFER OF REPRESENTATIVE'S UNIT WARRANT. The Holder of a Representative's Unit Warrant, by its acceptance thereof, covenants and agrees that the Representative's Unit Warrant is being acquired as an investment and not with a view to the distribution thereof; and that the Representative's Unit Warrant may not be sold, transferred, assigned, hypothecated or otherwise disposed of, in whole or in part, for a period of one year from the effective date of the Public Offering except to officers or partners (not directors) of the Representative and members of the selling group in the Public Offering and/or their officers or partners as required in compliance with NASD Rule 2710(c)(7)(A).

#### 6. EXERCISE PRICE.

6.1 INITIAL AND ADJUSTED EXERCISE PRICE. Except as otherwise provided in Section 8 hereof, the initial exercise price of each Representative's Unit Warrant shall be \$\_\_\_ [165% of the Public Unit offering price] per Representative's Unit. The exercise price of the Representative's Warrant and the number of Representative's Shares to be received upon exercise

of the Representative's Unit Warrant shall be subject to adjustment as provided in Section 8 hereof.

7. REGISTRATION RIGHTS.

7.1 DEMAND REGISTRATION UNDER THE SECURITIES ACT OF 1933.

At any time commencing after \_\_\_\_\_, 2004 [one (1) year from the Effective Date] through and including \_\_\_\_\_, 2008 [five (5) years from the Effective Date], the Holders of the Representative's Unit Purchase Warrant, Representative's Shares and Representative's Shares, representing a "Majority" of the shares of Common Stock issuable upon the exercise of the Units (assuming the exercise of all of the Representative's Unit Warrant) shall have the right (which right is in addition to the registration rights under Section 7.2 hereof), exercisable by written notice to the Company, to have the Company prepare and file with the Commission, on one occasion, a registration statement and such other documents, including a prospectus, as may be necessary in the opinion of both counsel for the Company and counsel for the Representative and Holders, in order to comply with the provisions of the Act, so as to permit a public offering and sale of their respective Representative's Shares and Representative's Warrants during a period equal to the longer of: (i) nine (9) months or (ii) the unexpired term of the Representative's Warrants by such Holders and any other Holders of the Representative's Unit Warrant who shall notify the Company within ten (10) days after receiving notice from the Company of such request.

7.2 PIGGYBACK REGISTRATION. If, at any time commencing after \_\_\_\_\_, 2004 [one year from the Effective Date], through and including \_\_\_\_\_, 2008 [five (5) years from the Effective Date], the Company proposes to register any of its securities under the Act (other than in connection with a merger or similar transaction with a filing on a Form S-4 or pursuant to Form S-8 or similar form) it will give written notice by registered or certified mail, at least thirty (30) days prior to the filing of each such registration statement, to the Representative and to all other Holders of the Representative's Unit Warrant, Representative's Units, Representative's Warrants or Representative's Shares underlying the Representative's Units, of its intention to do so. If any of the Representatives or other Holders of the Representative's Unit Warrant, Representative's Units, Representative's Warrants or Representative's Shares underlying the Representative's Unit Warrant, notify the Company within twenty (20) days after receipt of any such notice of its or their desire to include any such securities in such proposed registration statement, the Company shall afford each of the Representative and such Holders of the

Representative's Unit Warrant, Representative's Units, Representative's Warrant or Representative's Shares, the opportunity to have any of such securities registered under such registration statement.

Notwithstanding the provisions of this Section 7.2, the Company shall have the right at any time after it shall have given written notice pursuant to this Section 7.2 (irrespective of whether a written request for inclusion of any such securities shall have been made) to elect not to file any such proposed registration statement, or to withdraw the same after the filing but prior to the Effective Date thereof.

7.3. NOTICE TO BE DELIVERED. The Company covenants and agrees to give written notice of any registration request under Section 7.1 by any Holder or Holders to all other registered Holders of the Representative's Unit Warrant, Representative's Units, Representative's Warrants and Representative's Shares within ten (10) days from the date of the receipt of any such registration request.

7.4 COVENANTS OF THE COMPANY WITH RESPECT TO REGISTRATION. In connection with any registration under Section 7.1 or 7.2 hereof, the Company covenants and agrees as follows:

(a) The Company shall use its best efforts to file a registration statement within forty-five (45) days of receipt of any demand therefor in accordance with Section 7.1, shall use its best efforts to have any registration statement declared effective at the earliest practicable time, and shall furnish each Holder desiring to sell the Representative's Shares and Representative's Warrants and the shares underlying the Representative's Warrants such number of prospectuses as shall reasonably be requested. Notwithstanding the foregoing sentence, the Company shall be entitled to postpone the filing of any registration statement otherwise required to be prepared and filed by it pursuant to this Section 7.4(a) if (i) the Company is under contract or other binding legal obligation for a material acquisition, reorganization or divestiture, or (ii) the Company is publically committed to a self-tender or exchange offer and the filing of a registration statement would cause a violation of Rule 10b-6 under the Securities Exchange Act of 1934. In the event of such postponement, the Company shall be required to file the registration statement pursuant to this Section 7.4(a) upon the earlier of (i) the consummation or termination, as applicable, of the event requiring such postponement or (ii) 90 days after the receipt of the initial demand for such registration.

(b) The Company shall pay all costs (excluding fees and expenses of Holder(s) counsel and any underwriting or selling commissions), fees and expenses in connection with all

registration statements filed pursuant to Sections 7.1 and 7.2 hereof including, without limitation, the Company's legal and accounting fees, printing expenses, and blue sky fees and expenses. The Holder(s) whose securities are included in any registration statement filed by the Company will pay all costs, fees and expenses in connection with any registration statement filed pursuant to Section 7.1 or 7.2. If the Company shall fail to comply with the provisions of Section 7.4, the Company shall, in addition to any other equitable or other relief available to the Holder(s), be liable for any or all actual damages (which may include damages due to a loss of profit).

(c) The Company will take all necessary action which may be required in qualifying or registering the Representative's Warrants, Representative's Shares and underlying shares of Common Stock included in a registration statement for offering and sale under the securities or blue sky laws of such states as reasonably are requested by the Holder(s), provided that the Company shall not be obligated to execute or file any general consent to service of process or to qualify as a foreign corporation to do business under the laws of any such jurisdiction.

(d) The Company shall indemnify the Holder(s) of the Representative's Unit Warrant, Representative's Warrants and Representative's Shares to be sold pursuant to any registration statement and each person, if any, who controls such Holders within the meaning of Section 15 of the Act or Section 20(a) of the Securities Exchange Act of 1934, as amended ("Exchange Act"), against all loss, claim, damage, expense or liability (including all expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which any of them may become subject under the Act, the Exchange Act or otherwise, arising from such registration statement but only to the same extent and with the same effect as the provisions pursuant to which the Company has agreed to indemnify the Underwriters contained in Section 7 of the Underwriting Agreement.

(e) The Holder(s) of the Representative's Unit Warrant, Representative's Units, Representative's Shares and Representative's Warrants and shares of Common Stock underlying the Representative's Warrant to be sold pursuant to a registration statement, and their successors and assigns, shall severally, and not jointly, indemnify the Company, its officers and directors and each person, if any, who controls the Company within the meaning of Section 15 of the Act or Section 20(a) of the Exchange Act, against all loss, claim, damage or expense or liability (including all expenses reasonably incurred in investigating, preparing or defending against any claim whatsoever) to which they may become subject under the Act, the Exchange Act or otherwise, arising from information furnished by or on behalf of such Holders, or their



successors or assigns, for specific inclusion in such registration statement to the same extent and with the same effect as the provisions contained in Section 7 of the Underwriting Agreement pursuant to which the Underwriters have agreed to indemnify the Company.

(f) Nothing contained in this Agreement shall be construed as requiring the Holder(s) to exercise their Representative's Unit Warrant or the Representative's Warrants prior to the initial filing of any registration statement or the effectiveness thereof.

(g) The Company shall as soon as practicable after the Effective Date of the registration statement filed pursuant to this Section 7, and in any event within 15 months thereafter, have made "generally available to its security holders" (within the meaning of Rule 158 under the Act) an earnings statement (which need not be audited) complying with Section 11(a) of the Act and covering a period of at least 12 consecutive months beginning after the Effective Date of such registration statement.

(h) In connection with a demand registration pursuant to Section 7.1, the Company shall enter into an underwriting agreement with the managing Representative(s) selected for such underwriting, if any, by Holders holding a Majority of the Representative's Unit Warrants, Representative's Units, Representative's Shares and Representative's Warrants requested to be included in such underwriting. Such underwriting agreement shall be satisfactory in form and substance to the Company, each Holder and such managing Representatives, and shall contain such representations, warranties and covenants by the Company and such other terms as are customarily contained in agreements of that type used by the managing Representative(s).

The Holders shall be parties to any underwriting agreement relating to an underwritten sale of their Representative's Shares and Representative's Warrants and shares of Common Stock Shares underlying the Representative's Warrants and may, at their option, require that any or all the representations, warranties and covenants of the Company to or for the benefit of such Representative(s) shall also be made to and for the benefit of such Holders. Such Holders shall not be required to make any representations or warranties to or agreements with the Company or the Representative(s) except as they may relate to such Holders, their intended methods of distribution, and except for matters related to disclosures with respect to such Holders, contained or required to be contained, in such registration statement under the Act and the rules and regulations thereunder.

(i) For purposes of this Agreement, the term "Majority" in reference to the Holders of Representative's Warrants and Representative's Shares and shares underlying the

Representative's Warrants, shall mean in excess of fifty percent (50%) of the then outstanding Warrants and Representative's Shares that (i) are not held by the Company, an affiliate, officer, creditor, employee or agent thereof or any of their respective affiliates, members of their families, persons acting as nominees or in conjunction therewith or (ii) have not been resold to the public pursuant to Rule 144 under the Act or a registration statement filed with the Commission under the Act.

8. ADJUSTMENTS TO EXERCISE PRICE AND NUMBER OF SECURITIES.

8.1 ADJUSTMENTS TO REPRESENTATIVE'S WARRANTS. The Exercise Price of the Representative's Warrants and number of securities issuable with respect to the Representative's Warrants shall be adjusted on the same terms and conditions, and at the same time, as any adjustments in the Exercise Price and number of shares issuable with respect to the Public Warrants required by the terms of the Public Warrants.

8.2 ADJUSTMENT TO NUMBER OF REPRESENTATIVE'S SHARES. The number of Representative's Shares to be received upon exercise of the Representative's Unit Warrants shall be subject to adjustment as follows:

(a) In the event that the number of outstanding shares of Common Stock is increased by a stock dividend payable in Common Stock or by a subdivision of the outstanding Common Stock, then, from and after the effective time of such increase by reason of such dividend or subdivision, the number of shares of Common Stock issuable upon the exercise of each Representative's Unit Warrant shall be increased in proportion to such increase in outstanding shares. In the event that the number of shares of Common Stock outstanding is decreased by a combination of the outstanding Common Stock, then, from and after the effective time of such decrease by reason of such combination, the number of shares of Common Stock issuable upon the exercise of each Representative's Unit Warrant shall be decreased in proportion to such decrease in the outstanding shares of Common Stock.

(b) In case of any reorganization or reclassification of the outstanding Common Stock (other than a change in par value, or from par value to no par value, or as a result of a subdivision or combination), or in case of any consolidation of the Company with, or merger of the Company into, another corporation (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification of the outstanding Common Stock), or in case of any sale or conveyance to another corporation of the property of the Company as an entirety or substantially as an entirety, the Holder of each

Representative's Unit Warrant then outstanding shall thereafter have the right to purchase the kind and amount of shares of Common Stock and other securities and property receivable upon such reorganization, reclassification, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock which the Holder of such Representative's Unit Warrant shall then be entitled to purchase; such adjustments shall apply with respect to all such changes occurring between the date of this Agreement and the date of exercise of such Representative's Unit Warrant.

(c) Subject to the provisions of this Section 8, in case the Company shall, at any time prior to the exercise of the Warrants, make any distribution of its assets to holders its Common Stock as a liquidating or a partial liquidating dividend, then the holder of Warrants who exercises its Warrants after the record date for the determination of those holders of Common Stock entitled to such distribution of assets as a liquidating or partial liquidating dividend shall be entitled to receive for the Warrant Exercise Price per Warrant, in addition to each share of Common Stock, the amount of such distribution or, at the option of the Company, a sum equal to the value of any such assets at the time of such distribution as determined by the Board of Directors of the Company in good faith) which would have been payable to such holder had such holder been the holder of record of the Common Stock receivable upon exercise of its Warrant on the record date for the determination of those entitled to such distribution.

(d) In case of the dissolution, liquidation or winding up of the Company, all rights under this Representative's Unit Warrants shall terminate on a date fixed by the Company, such date to be no earlier than ten (10) days prior to the effectiveness of such dissolution, liquidation or winding up and not later than five (5) days prior to such effectiveness. Notice of such termination of purchase rights shall be given to the last registered holder of the Representative's Unit Warrants, as the same shall appear on the books of the Company maintained by the Warrant Agent, by registered mail at least thirty (30) days prior to such termination date.

(e) In case the Company shall, at any time prior to the expiration of the Representative's Unit Warrants and prior to the exercise thereof, offer to the holders of its Common Stock any rights to subscribe for additional shares of any Class of the Company, then the Company shall give written notice thereof to the registered holders of the Representative's Unit Warrants not less than thirty (30) days prior to the date on which the books of the Company are closed or a record date is fixed for the determination of the stockholders entitled to such subscription rights. Such notice shall specify the date as to which the books shall be closed or the

record date fixed with respect to such offer of subscription and the right of the holders of the Representative's Unit Warrants to participate in such offer of subscription shall terminate if the Representative's Unit Warrant shall not be exercised on or before the date of such closing of the books or such record date.

(f) Any adjustment pursuant to the aforesaid provisions of this Section 8 shall be made on the basis of the number of shares of Common Stock which the holder thereof would have been entitled to acquire upon the exercise of the Representative's Unit Warrant immediately prior to the event giving rise to such adjustment.

9. EXCHANGE AND REPLACEMENT OF REPRESENTATIVE'S UNIT WARRANTS. Each Representative's Unit Warrant is exchangeable without expense, upon the surrender thereof by the registered Holder at the principal executive office of the Company, for a new Representative's Unit Warrant of like tenor and date representing in the aggregate the right to purchase the same number of Representative's shares and Representative's Warrants as provided in the original Representative's Unit Warrant in such denominations as shall be designated by the Holder thereof at the time of such surrender.

Upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of any Representative's Unit Warrant, and, in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it, and reimbursement to the Company of all reasonable expenses incidental thereto, and upon surrender and cancellation of the Representative's Unit Warrant, if mutilated, the Company will make and deliver a new Representative's Unit Warrant of like tenor, in lieu thereof.

10. ELIMINATION OF FRACTIONAL INTERESTS. The Company shall not be required to issue certificates representing fractions of Representative's Shares upon the exercise of the Representative's Unit Warrant, nor shall it be required to issue scrip or pay cash in lieu of fractional interests, it being the intent of the parties that all fractional interests shall be eliminated by rounding any fraction up to the nearest whole number of shares of Common Stock or other securities, properties or rights.

11. RESERVATION AND LISTING OF SECURITIES. The Company shall at all times reserve and keep available out of its authorized shares of Common Stock, solely for the purpose of issuance upon the exercise of the Representative's Unit Warrant and Representative's Warrants, such number of shares of Common Stock or other securities, properties or rights as shall be issuable upon the exercise thereof. The Company covenants and agrees that, upon exercise of the

Representative's Unit Warrant and/or the Representative's Warrants and payment of the Exercise Price therefor, all Representative's Shares and other securities issuable upon such exercise shall be duly and validly issued, fully paid, non-assessable and not subject to the preemptive rights of any stockholder. As long as the Representative's Unit Warrant and/or Representative's Warrants shall be outstanding, the Company shall use its best efforts to cause all Representative's Shares and Representative's Shares issuable upon the exercise of the Representative's Warrants to be listed (subject to official notice of issuance) on all securities exchanges on which the Common Stock may then be listed and/or quoted on the Nasdaq Stock Market.

12. NOTICES TO REPRESENTATIVE'S UNIT WARRANT HOLDERS. Nothing contained in this Agreement shall be construed as conferring upon the Holders the right to vote or to consent or to receive notice as a stockholder in respect of any meetings of stockholders for the election of directors or any other matter, or any rights whatsoever as a stockholder of the Company. If, however, at any time prior to the expiration of the Representative's Unit Warrant or Representative's Warrants and their exercise, any of the following events shall occur:

(a) the Company shall take a record of the holders of its shares of Common Stock for the purpose of entitling them to receive a dividend or distribution payable otherwise than in cash, or a cash dividend or distribution payable otherwise than out of current or retained earnings, as indicated by the accounting treatment of such dividend or distribution on the books of the Company; or

(b) the Company shall offer to all the holders of its Common Stock any additional shares of capital stock of the Company or securities convertible into or exchangeable for shares of capital stock of the Company, or any option, right or warrant to subscribe therefor; or

(c) a dissolution, liquidation or winding up of the Company (other than in connection with a consolidation or merger) or a sale of all or substantially all of its property, assets and business as an entirety shall be proposed;

then, in any one or more of such events the Company shall give written notice of such event at least fifteen (15) days prior to the date fixed as a record date or the date of closing the transfer books for the determination of the stockholders entitled to such dividend, distribution, convertible or exchangeable securities or subscription rights, or entitled to vote on such proposed dissolution, liquidation, winding up or sale. Such notice shall specify such record date or the date of closing the transfer books, as the case may be. Failure to give such notice or any defect

therein shall not affect the validity of any action taken in connection with the declaration or payment of any such dividend, distribution or the issuance of any convertible or exchangeable securities, or subscription rights, options or warrants, or any proposed dissolution, liquidation, winding up or sale.

### 13. NOTICES

All notices requests, consents and other communications hereunder shall be in writing and shall be deemed to have been duly made when delivered, or mailed by registered or certified mail, return receipt requested:

(a) If to the registered Holder of the Representative's Unit Warrant, to the address of such Holder as shown on the books of the Company; or

(b) If to the Company, to the address set forth in Section 3 hereof or to such other address as the Company may designate by notice to the Holders.

14. SUPPLEMENTS AND AMENDMENTS. The Company and the Representative may from time to time supplement or amend this Agreement without the approval of any holders of Representative's Unit Warrants (other than the Representative) in order to cure any ambiguity, to correct or supplement any provision contained herein which may be defective or inconsistent with any provisions herein or to make any other provisions in regard to matters or questions arising hereunder which the Company and the Representative may deem necessary or desirable and which the Company and the Representative deem shall not adversely affect the interests of the Holders of Representative's Unit Warrants.

15. SUCCESSORS. All the covenants and provisions of this Agreement shall be binding upon and inure to the benefit of the Company, the Holders and their respective successors and assigns hereunder.

16. TERMINATION. This Agreement shall terminate at the close of business on \_\_\_\_\_, 2008. Notwithstanding the foregoing, the indemnification provisions of Section 7 shall survive such termination until the close of business on \_\_\_\_, 2011.

### 17. GOVERNING LAW; SUBMISSION TO JURISDICTION.

(a) This Agreement and each Representative's Unit Warrant issued hereunder shall be deemed to be a contract made under the laws of the State of Delaware and for all purposes shall be construed in accordance with the laws of such State without giving effect to the rules of said State governing the conflicts of laws.

(b) The Company, the Representative and the Holders hereby agree that any action, proceeding or claim against it arising out of, or relating in any way to, this Agreement shall be brought and enforced in the courts of the State of New York or of the United States of America for the Southern District of New York, and irrevocably submits to such jurisdiction, which jurisdiction shall be exclusive. The Company, the Representative and the Holders hereby irrevocably waive any objection to such exclusive jurisdiction or inconvenient forum. Any such process or summons to be served upon any of the Company, the Representative and the Holders (at the option of the party bringing such action, proceeding or claim) may be served by transmitting a copy thereof, by registered or certified mail, return receipt requested, postage prepaid, addressed to it at the address determined in accordance with Section 13 hereof. Such mailing shall be deemed personal service and shall be legal and binding upon the party so served in any action, proceeding or claim. The Company, the Representative and the Holders agree that the prevailing party(ies) in any such action or proceeding shall be entitled to recover from the other party(ies) all of its/their reasonable legal costs and expenses relating to such action or proceeding and/or incurred in connection with the preparation therefor.

18. ENTIRE AGREEMENT; MODIFICATION. This Agreement (including the Underwriting Agreement to the extent portions thereof are referred to herein) contains the entire understanding between the parties hereto with respect to the subject matter hereof and, except as provided in Section 14 hereof, may not be modified or amended except by a writing duly signed by the party against whom enforcement of the modification or amendment is sought. Any terms not otherwise defined herein shall have the meaning ascribed to such term in the Underwriting Agreement.

19. SEVERABILITY. If any provision of this Agreement shall be held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision of this Agreement.

20. CAPTIONS. The caption headings of the Sections of this Agreement are for convenience of reference only and are not intended, nor should they be construed as, a part of this Agreement and shall be given no substantive effect.

21. BENEFITS OF THIS AGREEMENT. Nothing in this Agreement shall be construed to give to any person or corporation other than the Company and the Representative and any other registered Holder(s) of the Representative's Unit Warrants or Representative's Shares or the Representative's Warrants any legal or equitable right, remedy or claim under this Agreement;

and this Agreement shall be for the sole and exclusive benefit of the Company and the Representative and any other Holder(s) of the Representative's Unit Warrants or Representative's Shares or Representative's Warrants.

22. COUNTERPARTS. This Agreement may be executed in any number of counterparts and each of such counterparts shall for all purposes be deemed to be an original, and such counterparts shall together constitute but one and the same instrument.

Remainder of page intentionally left blank. Signature page follows.



IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed, as of the day and year first above written.

[SEAL]

DELCATH SYSTEMS, INC.

By: \_\_\_\_\_  
Name:  
Title:

Attest:

Secretary

Agreed and accepted as of the date first above written

ROAN/MEYERS ASSOCIATES, L.P.,  
as Representative of the Underwriters  
By: MEYERS/JANSSEN SECURITIES CORP.,  
General Partner

By: \_\_\_\_\_  
Name: Bruce Meyers  
Title: President

EXHIBIT A

[FORM OF REPRESENTATIVE'S UNIT WARRANT CERTIFICATE]

THE REPRESENTATIVE'S UNIT WARRANT REPRESENTED BY THIS CERTIFICATE AND THE OTHER SECURITIES ISSUABLE UPON EXERCISE THEREOF MAY NOT BE OFFERED OR SOLD EXCEPT PURSUANT TO (i) AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, (ii) TO THE EXTENT APPLICABLE, RULE 144 UNDER SUCH ACT (OR ANY SIMILAR RULE UNDER SUCH ACT RELATING TO THE DISPOSITION OF SECURITIES), OR (iii) AN OPINION OF COUNSEL, IF SUCH OPINION SHALL BE REASONABLY SATISFACTORY TO COUNSEL FOR THE ISSUER, THAT AN EXEMPTION FROM REGISTRATION UNDER SUCH ACT IS AVAILABLE.

THE TRANSFER OR EXCHANGE OF THE REPRESENTATIVE'S UNIT PURCHASE WARRANT REPRESENTED BY THIS CERTIFICATE IS RESTRICTED IN ACCORDANCE WITH THE REPRESENTATIVE'S WARRANT AGREEMENT FOR UNITS REFERRED TO HEREIN.

EXERCISABLE ON OR BEFORE  
5:00 P.M., NEW YORK TIME, \_\_\_\_\_, 2008

No. DS-UW-1 \_\_\_\_\_ Representative's Unit Warrant

Representative's Unit Warrant

This Representative's Unit Warrant certifies that ROAN/MEYERS ASSOCIATES, L.P., or registered assigns, is the registered holder of \_\_\_\_\_ Representative's Unit Purchase Warrants to purchase initially, at any time from \_\_\_\_\_, 2003 until 5:00 p.m. New York time on \_\_\_\_\_, 2008 ("Expiration Date"), up to \_\_\_\_\_ Representative's Units (the "Units") of Delcath Systems, Inc., a Delaware corporation (the "Company"), at an initial exercise price, subject to adjustment in certain events (the "Exercise Price"), of \$\_\_\_\_\_ [165% of the public offering price of the Units] upon surrender of this Representative's Unit Warrant and payment of the Exercise Price at an office or agency of the Company, but subject to the conditions set forth herein and in the Representative's Unit Warrant Agreement dated as of \_\_\_\_\_, 2002 between the Company and Roan/Meyers Associates, L.P. (the "Representative's Warrant Agreement"). Payment of the Exercise Price shall be made by certified or official bank check in New York Clearing House funds payable to the order of the Company.

No Representative's Unit Warrant may be exercised after 5:00 p.m., New York time, on the Expiration Date, at which time all Representative's Unit Warrants evidenced hereby, unless exercised prior thereto, shall thereafter be void.

The Representative's Unit Warrant evidenced by this Representative's Unit Purchase Warrant Certificate are part of a duly authorized issue of Units pursuant to the Representative's Warrant Agreement, which Representative's Warrant Agreement is hereby incorporated by reference herein and made a part of this instrument and is hereby referred to for a description of the rights, limitation of rights, obligations, duties and immunities thereunder of the Company and the holders (the words "holders" or "holder" meaning the registered holders or registered holder) of the Representative's Unit Warrant.

The Representative's Warrant Agreement provides that upon the occurrence of certain events the exercise prices and/or number of the Company's securities issuable thereupon may, subject to certain conditions, be adjusted. In such event, the Company will, at the request of the holder, issue a new Representative's Unit Warrant Certificate evidencing the adjustment in the exercise price and the number and/or type of securities issuable upon the exercise of the Representative's Unit Warrant; provided, however, that the failure of the Company to issue such new Representative's Unit Warrants shall not in any way change, alter or otherwise impair, the rights of the holder as set forth in the Representative's Warrant Agreement.

Upon due presentment for registration of transfer of this Representative's Unit Warrant at an office or agency of the Company, a new Representative's Unit Warrant or Representative's Unit Warrants of like tenor and evidencing in the aggregate a like number of Representative's Unit Warrants shall be issued to the transferee(s) in exchange for this Representative's Unit Warrant, subject to the limitations provided herein and in the Representative's Warrant Agreement, without any charge except for any tax or other governmental charge imposed in connection with such transfer.

Upon the exercise of less than all of the Representative's Unit Warrants evidenced by this Certificate, the Company shall forthwith issue to the holder hereof a new Representative's Unit Warrant Certificate representing such number of unexercised Representative's Unit Warrants.

The Company may deem and treat the registered holder(s) hereof as the absolute owner(s) of this Representative's Unit Warrant (notwithstanding any notation of ownership or other writing hereon made by anyone), for the purpose of any exercise hereof, and of any distribution to the holder(s) hereof, and for all other purposes, and the Company shall not be affected by any notice to the contrary.

All terms used in this Representative's Unit Purchase Warrant which are defined in the Representative's Warrant Agreement shall have the meanings assigned to them in the Representative's Warrant Agreement.

IN WITNESS WHEREOF, the Company has caused this Representative's Unit Warrant to be duly executed under its corporate seal.

Dated as of \_\_\_\_\_, 2003

DELCATH SYSTEMS, INC.

[SEAL]

By: \_\_\_\_\_  
Name:  
Title:

Attest:

Secretary

[FORM OF ELECTION TO PURCHASE]

The undersigned hereby irrevocably elects to exercise the right, represented by this Representative's Unit Warrant, to purchase \_\_\_\_\_ Units and herewith tenders in payment for such securities a certified or official bank check payable in New York Clearing House Funds to the order of Delcath Systems, Inc. in the amount of \$\_\_\_\_\_, all in accordance with the terms hereof. The undersigned requests that a certificate for such securities be registered in the name of \_\_\_\_\_ whose address is \_\_\_\_\_ and that such Certificate be delivered to \_\_\_\_\_ whose address is \_\_\_\_\_.

Dated:

Signature \_\_\_\_\_  
(Signature must conform in all respects to name of holder as specified on the face of the Representative's Unit Purchase Warrant.)

Insert Social Security or Other  
Identifying Number of Holder)

NUMBER

WARRANTS

DSW

CUSIP \_\_\_\_\_

THIS IS TO CERTIFY THAT

or registered assigns, is the owner of the number of warrants set forth above. Each warrant (subject to adjustments as hereinafter referred to) entitles the holder hereof to purchase at any time until 5:00 p.m. Eastern Time on \_\_\_\_\_, \_\_\_\_\_, 2008 one fully paid and non-assessable share of common stock (the "Common Stock") of Delcath Systems, Inc. a Delaware corporation (the "Company") (such shares of Common Stock being hereinafter referred to as the "Shares" or a "Share"), upon payment of the warrant price (as hereinafter described), provided, however, that under certain conditions set forth in the Warrant Agreement hereinafter mentioned the number of Shares purchased upon the exercise of this Warrant may be increased or reduced and the warrant price may be adjusted. Subject to adjustment as aforesaid, the warrant price per Share (hereinafter called the "Warrant Price") shall be \$\_\_\_\_\_ per Share. As provided in said Warrant Agreement the Warrant Price is payable upon the exercise of the Warrant, either in cash or by certified check or bank draft to the order of the Company.

Under certain conditions set forth in the Warrant Agreement, this Warrant may be called for redemption on or after \_\_\_\_\_, at a redemption price of \$0.01 per Warrant upon written notice of not less than 30 days.

Upon the exercise of this Warrant, the form of election to purchase on the reverse hereof must be properly completed and executed. In the event that this Warrant is exercised in respect to less than all of such Shares, a new Warrant for the remaining number of Shares will be issued on such surrender.

This Warrant is issued under and the rights represented hereby are subject to the terms and provisions contained in a Warrant Agreement dated as of \_\_\_\_\_ by and between the Company and American Stock Transfer & Trust Company, as Warrant Agent (the "Warrant Agent"), all terms and provisions of which the registered holder of this Warrant, by acceptance hereof, assents. Reference is hereby made to said Warrant Agreement for a more complete statement of the rights and limitations of rights of the registered holders hereof, the rights and duties of the Warrant Agent and the rights and obligations of the Company hereunder. Copies of said Warrant Agreement are on file at the office of the Warrant Agent.

The Company shall not be required upon the exercise of this Warrant to issue fractions of Shares, but shall make adjustments therefor in cash on the basis of the then current market value of any fractional interest as provided in the Warrant Agreement.

This Warrant is transferable at the office of the Warrant Agent (or of its successor as Warrant Agent) by the registered holder hereof in person or by attorney duly authorized in writing, but only in this manner and subject to the limitations provided in the Warrant Agreement and upon surrender of this Warrant and the payment of any transfer taxes. Upon any such transfer, a new Warrant, or Warrants of different denominations, of this tenor and representing in the aggregate the right to purchase a like number of Shares will be issued to the transferee in exchange for this Warrant.

This Warrant may be transferred, when surrendered at the office of the Warrant Agent or its successor as warrant agent by the registered holder hereof in person or by attorney duly authorized in writing, but only in the manner and subject to the limitations provided in the Warrant Agreement and upon surrender of this Warrant Certificate and the payment of any transfer taxes. Upon any such transfer, a new Warrant or, Warrants of different denominations, of this tenor and representing in the aggregate the right to purchase a like number of Shares equal to this number of such Warrants.

If this Warrant Certificate shall be surrendered for exercise within any period during which the transfer books for the Company's Common Stock or other securities purchasable upon exercise of the Warrants are closed for any purpose, the Company shall not be required to make delivery of certificates for the securities purchase upon such exercise until the date of the reopening of said transfer books.

The holder of this Warrant shall not be entitled to any of the rights of a shareholder of the Company prior to the exercise hereof.

This Warrant shall not be valid unless countersigned by the Warrant Agent.

Witness the facsimile seal of the Company and the facsimile signatures

of its duly authorized officers.

DATED:

[SIGNATURE]

[CORPORATE SEAL]

[SIGNATURE]

DELCATH SYSTEMS, INC

ELECTION TO PURCHASE

To Be Executed by the Registered Holder In Order to Exercise Warrants

To: DELCATH SYSTEMS, INC.

c/o: American Stock Transfer & Trust Company

40 Wall Street

New York, New York 10005

The undersigned hereby irrevocably elects to exercise the right of purchase represented by the within Warrant(s) for and to purchase thereunder, \_\_\_\_\_ shares of Common Stock provided for therein and tenders herewith payment of the purchase price in full to the order of the Company and requests that certificates for such shares shall be issued in the name of

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER

-----  
(Please Print or Typewrite)

and be delivered to

-----  
(Name)

at

-----  
(Street Address) (City) (State) (Zip Code)

and, if said number of shares shall not be all the shares purchasable thereunder, that a new Warrant for the balance remaining of the shares purchasable under the within Warrant be registered in the name of, and delivered to, the undersigned at the address stated below.

Dated: -----

Signature: -----

Name: -----

(Please Print or Typewrite)

Note: The above signature must correspond with the name as written upon the face of this Warrant or with the name of the assignee appearing in the assignment from below in every particular without alteration or enlargement or any change whatever.

\*Signature Guaranteed: -----

Address: -----

(Street)

-----  
(City) (State) (Zip Code) PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER



ASSIGNMENT

For value received: \_\_\_\_\_ hereby sell, assign and  
transfer unto \_\_\_\_\_

PLEASE INSERT SOCIAL SECURITY  
OR OTHER IDENTIFYING NUMBER

-----  
Please Print or typewrite name and address including postal zip code of assignee

-----  
( \_\_\_\_\_ ) Warrants represented by the within Warrant Certificate,  
together with all right, title and interest therein, and do hereby irrevocably  
constitute and appoint \_\_\_\_\_

-----  
attorney to transfer said Warrant on the books of the within named Company, with  
full power of substitution in the premises,

Dated: \_\_\_\_\_

Signature: \_\_\_\_\_

Note: The above signature must  
correspond with the name as  
written upon the face of the  
Warrant in every particular  
without alteration or  
enlargement of any change  
whatever.

\*Signature Guaranteed: \_\_\_\_\_

\*In case of assignment or if the Common Stock issued upon exercise is to be  
registered in the name of a person other than the holder, the holder's signature  
must be guaranteed by a commercial bank, trust company or an NASD member firm.

WARRANT AGENT AGREEMENT

dated as of \_\_\_\_\_, 2003

between

DEL CATH SYSTEMS, INC.

and

AMERICAN STOCK TRANSFER & TRUST COMPANY

WARRANT AGENT AGREEMENT dated as of \_\_\_\_\_, 2003, by and between DELCATH SYSTEMS, INC., a Delaware corporation (the "Company"), and AMERICAN STOCK TRANSFER & TRUST COMPANY, as warrant agent (hereinafter called the "Warrant Agent").

WHEREAS, the Company proposes to issue and sell to the public up to \_\_\_\_\_ units (including up to \_\_\_\_\_ units that may be issued pursuant to a Warrant Agreement dated \_\_\_\_\_, 2003 between the Company and Roan/Meyers Associates, L.P. (the Representative)) (the "Units") each Unit consisting of five shares of the common stock of the Company, par value \$.01 per share (hereinafter, together with the stock of any other class to which such shares may hereafter have been changed, the "Common Stock"), and five Common Stock Purchase Warrants (the "Warrants");

WHEREAS, each Warrant will entitle the holder to purchase one share of Common Stock;

WHEREAS, the Company desires the Warrant Agent to act on behalf of the Company, and the Warrant Agent is willing to so act, in connection with the issuance, registration, transfer, exchange and exercise of the Warrants;

NOW, THEREFORE, in consideration of the premises and the mutual agreements herein set forth, the parties hereto agree as follows:

Section 1. APPOINTMENT OF WARRANT AGENT. The Company hereby appoints the Warrant Agent to act as warrant agent for the Company in accordance with the instructions hereinafter set forth in this Agreement, and the Warrant Agent hereby accepts such appointment.

Section 2. FORM OF WARRANT. The text of the Warrants and of the form of election to purchase Common Stock to be printed on the reverse thereof shall be

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substantially as set forth in Exhibit A attached hereto. Each Warrant shall entitle the registered holder thereof to purchase one share of Common Stock at a purchase price of \_\_\_\_\_ (\$\_\_\_\_\_) (or, in the case of Warrants issued to the Representative, \_\_\_\_\_ (\$\_\_\_\_)), at any time commencing on the date of issuance thereof and ending at 5:00 p.m. Eastern time, on \_\_\_\_\_, 2008 (the "Warrant Exercise Period"). The Warrant Exercise Price and the number of shares of Common Stock issuable upon exercise of the Warrants are subject to adjustment upon the occurrence of certain events, all as hereinafter provided. The Warrants shall be executed on behalf of the Company by the manual or facsimile signature of the present or any future Chief Executive Officer, President or Vice President of the Company, attested to by the manual or facsimile signature of the present or any future Secretary or Assistant Secretary of the Company.

Warrants shall be dated as of the issuance by the Warrant Agent either upon initial issuance or upon transfer or exchange.

In the event the aforesaid expiration dates of the Warrants fall on a Saturday or Sunday, or on a legal holiday on which the New York Stock Exchange is closed, then the Warrants shall expire at 5:00 p.m. Eastern time on the next succeeding business day.

Section 3. COUNTERSIGNATURE AND REGISTRATION. The Warrant Agent shall maintain books for the transfer and registration of the Warrants. Upon the initial issuance of the Warrants, the Warrant Agent shall issue and register the Warrants in the names of the respective holders thereof. The Warrants shall be countersigned manually or by facsimile by the Warrant Agent (or by any successor to the Warrant Agent then acting as warrant agent under this Agreement) and shall not be valid for any purpose unless so countersigned. Warrants may, however, be so countersigned by the Warrant Agent (or by its successor as warrant agent) and be delivered by the Warrant Agent, notwithstanding that the persons whose manual or facsimile signatures appear thereon as proper officers of the Company shall have ceased to be such officers at the time of such countersignature or delivery.

Section 4. TRANSFERS AND EXCHANGES. The Warrant Agent shall transfer, from time to time, any outstanding Warrants upon the books to be maintained by the Warrant Agent for that purpose, upon surrender thereof for transfer properly endorsed or accompanied by appropriate instructions for transfer. Upon any such transfer, a new Warrant shall be issued to the transferee and the surrendered Warrant shall be cancelled by the Warrant Agent. Warrants so cancelled shall be delivered by the Warrant Agent to the Company from time to time upon request. Warrants may be exchanged at the option of the holder thereof, when surrendered at the office of the Warrant Agent, for another Warrant, or other Warrants of

different denominations of like tenor and representing in the aggregate the right to purchase a like number of shares of Common Stock.

Section 5. EXERCISE OF WARRANTS. Subject to the provisions of this Agreement, each registered holder of warrants shall have the right, which may be exercised commencing at the opening of business on the first day of the Warrant Exercise Period, to purchase from the Company (and the Company shall issue and sell to such registered holder of Warrants) the number of fully paid and non-assessable shares of Common Stock specified in such Warrants upon surrender of such Warrants to the Company at the office of the Warrant Agent, with the form of election to purchase on the reverse thereof duly filled in and signed, and upon payment to the Company of the Warrant Exercise Price, determined in accordance with the provisions of Sections 9 and 10 of this Agreement, for the number of shares of Common Stock in respect of which such Warrants are then exercised. Payment of the Warrant Exercise Price shall be made in cash or by certified check or bank draft to the order of the Company. Subject to Section 6, upon such surrender of Warrants and payment of the Warrant Exercise Price, the Company shall issue and cause to be delivered with all reasonable dispatch to or upon the written order of the registered holder of such Warrants and in such name or names as such registered holder may designate, a certificate or certificates for the number of full shares of Common Stock so purchased upon the exercise of such Warrants. Such certificate or certificates shall be deemed to have been issued, and any person so designated to be named therein shall be deemed to have become a holder of record of such shares of Common Stock, as of the date of the surrender of such Warrants and payment of the Warrant Exercise Price as aforesaid. The rights of purchase represented by the Warrants shall be exercisable, at the election of the registered holders thereof, either as an entirety or from time to time for a portion of the shares specified therein and, in the event that any Warrant is exercised in respect of fewer than all of the shares of Common Stock specified therein at any time prior to the end of the Warrant Exercise Period, a new Warrant or Warrants will be issued to the registered holder for the number of shares of Common Stock specified in the Warrant so surrendered as to which the Warrant is not exercised, and the Warrant Agent is hereby irrevocably authorized to countersign and to deliver the required new Warrants pursuant to the provisions of this Section and of Section 3 of this Agreement and the Company, whenever requested by the Warrant Agent, will supply the Warrant Agent with Warrants duly executed on behalf of the Company for such purpose. Anything in the foregoing to the contrary notwithstanding, no Warrant will be exercisable unless at the time of exercise the Company has filed with the Securities and Exchange Commission a registration statement under the Securities Act of 1933, as amended (the "Act"), covering the shares of Common Stock issuable upon exercise of such Warrant which registration statement is effective as of the time of exercise and such shares have been so registered or qualified or deemed to be exempt under the securities laws of the state of residence of the holder of such Warrant. The Company shall use its best efforts to have all shares so registered or qualified on or before the date on which the Warrants become exercisable.

Section 6. PAYMENT OF TAXES. The Company will pay any documentary stamp taxes attributable to the initial issuance of Common Stock issuable upon the exercise of Warrants; provided, however, that the Company shall not be required to pay any tax

which may be payable in respect of any transfer involved in the issue or delivery of any certificates for shares of Common Stock in a name other than that of the registered holder of Warrants in respect of which such shares are issued, and in such case neither the Company nor the Warrant Agent shall be required to issue or deliver any certificate for shares of Common Stock or any Warrant until the person requesting the same has paid to the Company the amount of such tax or has established to the Company's satisfaction that such tax has been paid.

Section 7. MUTILATED OR MISSING WARRANTS. In case any of the Warrants shall be mutilated, lost, stolen or destroyed, the Company may, in its discretion, issue and the Warrant Agent shall countersign and deliver in exchange and substitution for and upon cancellation of the mutilated Warrant, or in lieu of and in substitution for the Warrant lost, stolen or destroyed, a new Warrant of like tenor and representing an equivalent right or interest, but only upon receipt of evidence satisfactory to the Company and the Warrant Agent of such loss, theft or destruction and, in case of a lost, stolen or destroyed Warrant, indemnity, if requested, also satisfactory to them. Applicants for such substitute Warrants shall also comply with such other reasonable regulations and pay such reasonable charges as the Company or the Warrant Agent may prescribe.

Section 8. RESERVATION OF COMMON STOCK. There have been reserved, and the Company shall at all times keep reserved, out of the authorized and unissued shares of Common Stock, a number of shares of Common Stock sufficient to provide for the exercise of the rights of purchase represented by the Warrants, and the transfer agent for the shares of Common Stock and every subsequent transfer agent for any shares of the Common Stock issuable upon the exercise of any of the rights of purchase aforesaid are irrevocably authorized and directed at all times to reserve such number of authorized and unissued shares of Common Stock as shall be required for such purpose. The Company agrees that all shares of Common Stock issued upon exercise of the Warrants shall be, at the time of delivery of the certificates for such shares, validly issued and outstanding, fully paid and nonassessable and listed on any national securities exchange upon which the other shares of Common Stock are then listed. So long as any unexpired Warrants remain outstanding, the Company will file such post-effective amendments to the registration statement (Form SB-2, Registration No. 333-101661) (the "Registration Statement") filed pursuant to the Act with respect to the Warrants (or other appropriate registration statements or post-effective amendments or supplements) as may be necessary to permit it to deliver to each person exercising a Warrant, a prospectus meeting the requirements of Section 10(a)(3) of the Act and otherwise complying therewith, and will deliver such a prospectus to each such person. To the extent that during any period it is not reasonably likely that the Warrants will be exercised, due to market price or otherwise, the Company need not file such a post-effective amendment during such period. The Company will keep a copy of this Agreement on file with the transfer agent for the shares of Common Stock and with every subsequent transfer agent for any shares of the Company's Common Stock issuable upon the exercise of the rights of purchase represented by the Warrants. The Warrant Agent is irrevocably authorized to requisition from time to time from such transfer

agent stock certificates required to honor outstanding Warrants. The Company will supply such transfer agent with duly executed stock certificates for that purpose. All Warrants surrendered in the exercise of the rights thereby evidenced shall be cancelled by the Warrant Agent and shall thereafter be delivered to the Company, and such cancelled Warrants shall constitute sufficient evidence of the number of shares of Common Stock which have been issued upon the exercise of such Warrants. Promptly after the date of expiration of the Warrants, the Warrant Agent shall certify to the Company the total aggregate number of Warrants then outstanding, and thereafter no shares of Common Stock shall be subject to reservation in respect of such Warrants which shall have expired.

Section 9. WARRANT EXERCISE PRICE; ADJUSTMENTS.

(a) The Warrant Exercise Price shall be \$\_\_\_\_\_ per share or after adjustment, as provided in this Section, shall be such price as so adjusted.

(b) The Warrant Exercise Price shall be subject to adjustment from time to time as follows:

(i) In case the Company shall at any time after the date hereof pay a dividend in shares of Common Stock or make a distribution in shares of Common Stock, then upon such dividend or distribution the Warrant Exercise Price in effect immediately prior to such dividend or distribution shall forthwith be reduced to a price determined by dividing:

(A) an amount equal to the total number of shares of Common Stock outstanding immediately prior to such dividend or distribution multiplied by the Warrant Exercise Price in effect immediately prior to such dividend or distribution, by

(B) the total number of shares of Common Stock outstanding immediately after such dividend or distribution.

For the purposes of any computation to be made in accordance with the provisions of this Section 9(b)(i), the following provisions shall be applicable: Common Stock issuable by way of dividend or other distribution on any stock of the Company shall be deemed to have been issued immediately after the opening of business on the date following the date fixed for the determination of stockholders entitled to receive such dividend or other distribution.

(ii) In case the Company shall at any time subdivide or combine the outstanding Common Stock, the Warrant Exercise Price shall forthwith be proportionately decreased in the case of subdivision or increased in the case of combination to the nearest one cent. Any such adjustment shall become effective at the time such subdivision or combination shall become effective.

(iii) Within a reasonable time after the close of each quarterly fiscal period of the Company during which the Warrant Exercise Price has been adjusted as herein provided, the Company shall:

(A) file with the Warrant Agent a certificate signed by the Chief Executive Officer, President or Vice President of the Company and by the Chief Financial Officer, Principal Accounting Officer, Treasurer or Assistant Treasurer of the Company, showing in detail the facts requiring all such adjustments occurring during such period and the Warrant Exercise Price after each such adjustment; and

(B) the Warrant Agent shall have no duty with respect to any such certificate filed with it except to keep the same on file and available for inspection by holders of Warrants during reasonable business hours, and the Warrant Agent may conclusively rely upon the latest certificate furnished to it hereunder. The Warrant Agent shall not at any time be under any duty or responsibility to any holder of a Warrant to determine whether any facts exist which may require any adjustment of the Warrant Exercise Price, or with respect to the nature or extent of any adjustment of the Warrant Exercise Price when made, or with respect to the method employed in making any such adjustment, or with respect to the nature or extent of the property or securities deliverable hereunder. In the absence of a certificate's having been furnished, the Warrant Agent may conclusively rely upon the provisions of the Warrants with respect to the Common Stock deliverable upon the exercise of the Warrants and the applicable Warrant Exercise Price.

(iv) Notwithstanding anything contained herein to the contrary, no adjustment of the Warrant Exercise Price shall be made if the amount of such adjustment shall be less than \$0.02, but in such case any adjustment that would otherwise be required then to be made shall be carried forward and shall be made at the time and together with the next subsequent adjustment which, together with any adjustment so carried forward, shall amount to not less than \$0.02.

(v) In the event that the number of outstanding shares of Common Stock is increased by a stock dividend payable in Common Stock or by a subdivision of the outstanding Common Stock, then, from and after the time at which the adjusted Warrant Exercise Price becomes effective pursuant to this Section 9(b) by reason of such dividend or subdivision, the number of shares of Common Stock issuable upon the exercise of each Warrant shall be increased in proportion to such increase in outstanding shares. In the event that the number of shares of Common Stock outstanding is decreased by a combination of the outstanding Common Stock, then, from and after the time at which the adjusted Warrant Exercise Price becomes effective pursuant to this Section 9(b) by reason of such combination, the number of shares of Common Stock issuable upon the exercise of each Warrant shall be decreased in proportion to such decrease in the outstanding shares of Common Stock.

(vi) In case of any reorganization or reclassification of the outstanding Common Stock (other than a change in par value, or from par value to no par value, or as a result of a subdivision or combination), or in case of any consolidation of the Company with, or merger of the Company into, another corporation (other than a consolidation or merger in which the Company is the continuing corporation and which does not result in any reclassification of the outstanding Common Stock), or in case of any sale or conveyance to another corporation of the property of the Company as an entirety or substantially as an entirety, the holder of each Warrant then outstanding shall thereafter have the right to purchase the kind and amount of shares of Common Stock and other securities and property receivable upon such reorganization, reclassification, consolidation, merger, sale or conveyance by a holder of the number of shares of Common Stock which the holder of such Warrant shall then be entitled to purchase; such adjustments shall apply with respect to all such changes occurring between the date of this Warrant Agreement and the date of exercise of such Warrant.

(vii) Subject to the provisions of this Section 9, in case the Company shall, at any time prior to the exercise of the Warrants, make any distribution of its assets to holders of its Common Stock as a liquidating or a partial liquidating dividend, then the holder of Warrants who exercises its Warrants after the record date for the determination of those holders of Common Stock entitled to such distribution of assets as a liquidating or partial liquidating dividend shall be entitled to receive for the Warrant Exercise Price per Warrant, in addition to each share of Common Stock, the amount of such distribution (or, at the option of the Company, a sum equal to the value of any such assets at the time of such distribution as determined by the Board of Directors of the Company in good faith) which would have been payable to such holder had such holder been the holder of record of the Common Stock receivable upon exercise of its Warrant on the record date for the determination of those entitled to such distribution.

(viii) In case of the dissolution, liquidation or winding up of the Company, all rights under the Warrants shall terminate on a date fixed by the Company, such date to be no earlier than ten (10) days prior to the effectiveness of such dissolution, liquidation or winding up and not later than five (5) days prior to such effectiveness. Notice of such termination of purchase rights shall be given to the last registered holder of the Warrants, as the same shall appear on the books of the Company maintained by the Warrant Agent, by registered mail at least thirty (30) days prior to such termination date.

(ix) In case the Company shall, at any time prior to the expiration of the Warrants and prior to the exercise thereof, offer to the holders of its Common Stock any rights to subscribe for additional shares of any class of the Company, then the Company shall give written notice thereof to the registered holders of the Warrants not less than thirty (30) days prior to the date on which the books of the Company are closed or a record date is fixed for the determination of the stockholders entitled to such subscription rights. Such notice shall specify the date as to which the books shall be closed or the record date fixed with respect to such offer of subscription and the right of the holders of the Warrants



to participate in such offer of subscription shall terminate if the Warrant shall not be exercised on or before the date of such closing of the books or such record date.

(x) Any adjustment pursuant to the aforesaid provisions of this Section 9 shall be made on the basis of the number of shares of Common Stock which the holder thereof would have been entitled to acquire upon the exercise of the Warrant immediately prior to the event giving rise to such adjustment.

(xi) Irrespective of any adjustments in the Warrant Exercise Price or the number or kind of shares purchasable upon exercise of the Warrants, Warrants previously or thereafter issued may continue to express the same price and number and kind of shares as are stated in the similar Warrants initially issuable pursuant to this Warrant Agreement.

(xii) The Company may retain a firm of independent public accountants (who may be any such firm regularly employed by the Company) to make any computation required under this Section 9, and any certificate setting forth such computation signed by such firm shall be conclusive evidence of the correctness of any computation made under this Section 9.

(xiii) If at any time, as a result of an adjustment made pursuant to Section 9(b)(vi) above, the holder of a Warrant or Warrants shall become entitled to purchase any securities other than shares of Common Stock, thereafter the number of such securities so purchasable upon exercise of each Warrant and the Warrant Exercise Price for such securities shall be subject to adjustment from time to time in a manner and on terms as nearly equivalent as practicable to the provisions with respect to the Common Stock contained in Sections 9(b)(ii) through (v).

Section 10. FRACTIONAL INTEREST. The Warrants may only be exercised to purchase full shares of Common Stock and the Company shall not be required to issue fractions of shares of Common Stock on the exercise of Warrants. However, if a Warrant holder exercises all Warrants then owned of record by it and such exercise would result in the issuance of a fractional share, the Company will pay to such Warrant holder, in lieu of the issuance of any fractional share otherwise issuable, an amount of cash based on the market value of the Common Stock of the Company on the last trading day prior to the exercise date.

Section 11. NOTICES TO WARRANTHOLDERS.

(a) Upon any adjustment of the Warrant Exercise Price and the number of shares of Common Stock issuable upon exercise of a Warrant, then and in each such case the Company shall give written notice thereof to the Warrant Agent, which notice shall state the Warrant Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of a Warrant, setting forth in reasonable detail the method of calculation and the facts upon

which such calculation is based. The Company shall also mail such notice to the holders of the Warrants at their addresses appearing in the Warrant register. Failure to give or mail such notice, or any defect therein, shall not affect the validity of the adjustments.

(b) In case at any time:

(i) the Company shall pay dividends payable in stock upon its Common Stock or make any distribution (other than regular cash dividends) to the holders of its Common Stock; or

(ii) the Company shall offer for subscription pro rata to the holders of its Common Stock any additional shares of stock of any class or other rights; or

(iii) there shall be any capital reorganization or reclassification of the capital stock of the Company, or consolidation or merger of the Company with, or sale of substantially all of its assets to, another corporation; or

(iv) there shall be a voluntary or involuntary dissolution, liquidation or winding up of the Company;

then in any one or more of such cases, the Company shall give written notice in the manner set forth in Section 11(a) of the date on which (A) a record shall be taken for such dividend, distribution or subscription rights, or (B) such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding up shall take place, as the case may be. Such notice shall also specify the date as of which the holders of Common Stock of record shall participate in such dividend, distribution or subscription rights, or shall be entitled to exchange their Common Stock for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding up, as the case may be. Such notice shall be given at least thirty (30) days prior to the action in question and not less than thirty (30) days prior to any record date in respect thereof. Failure to give such notice, or any defect therein, shall not affect the legality or validity of any of the matters set forth in this Section 11(b).

(c) The Company shall cause copies of all financial statements and reports, proxy statements and other documents that are sent to its stockholders to be sent by first-class mail, postage prepaid to each registered holder of Warrants at his address appearing in the warrant register as of the record date for the determination of the stockholders entitled to such documents.

#### Section 12. DISPOSITION OF PROCEEDS ON EXERCISE OF WARRANTS.

(i) The Warrant Agent shall promptly forward to the Company all monies received by the Warrant Agent for the purchase of shares of Common Stock through the exercise of Warrants.

(ii) The Warrant Agent shall keep copies of this Agreement available for inspection by holders of Warrants during normal business hours.

Section 13. REDEMPTION OF WARRANTS. The Warrants are redeemable by the Company, in whole or in part, on not less than thirty (30) days' prior written notice at a redemption price of \$0.01 per Warrant at any time commencing on \_\_\_\_\_, \_\_\_\_, 2004; provided that (i) the average closing bid quotation for the Common Stock for the twenty (20) trading days prior to the day on which the Company gives notice (the "Call Date") of redemption has been at least \$\_\_\_\_\_ [200% of public unit offering price] and (ii) there is an effective registration statement under the Act covering the offer and sale of shares of Common Stock upon exercise of the Warrants. The redemption notice shall be mailed to the holders of the Warrants at their addresses appearing in the Warrant register. Holders of the Warrants will have exercise rights until the close of business on the date fixed for redemption.

Section 14. MERGER OR CONSOLIDATION OR CHANGE OF NAME OF WARRANT AGENT. Any corporation or company which may succeed to the corporate trust business of the Warrant Agent by any merger or consolidation or otherwise shall be the successor as the warrant agent hereunder without the execution or filing of any paper or any further act on the part of any of the parties hereto, provided that such corporation would be eligible to serve as a successor Warrant Agent under the provisions of Section 16 of this Agreement. In case at the time such successor to the Warrant Agent shall succeed to the agency created by this Agreement, any of the Warrants shall have been countersigned but not delivered, any such successor to the Warrant Agent may adopt the countersignature of the original Warrant Agent and deliver such Warrants so countersigned.

In case at any time the name of the Warrant Agent shall be changed and at such time any of the Warrants shall have been countersigned but not delivered, the Warrant Agent may adopt the countersignature under its prior name and deliver Warrants so countersigned. In all such cases such Warrants shall have the full force provided in the Warrants and in this Agreement.

Section 15. DUTIES OF WARRANT AGENT. The Warrant Agent undertakes the duties and obligations imposed by this Agreement upon the following terms and conditions, by all of which the Company and the holders of Warrants, by their acceptance thereof, shall be bound:

(a) The statements of fact and recitals contained herein and in the Warrants shall be taken as statements of the Company, and the Warrant Agent assumes no responsibility for the correctness of any of the same except such as describe the Warrant Agent or action taken or to be taken by it. The Warrant Agent assumes no responsibility with respect to the distribution of the Warrants except as herein expressly provided.

(b) The Warrant Agent shall not be responsible for any failure of the Company to comply with any of the covenants in this Agreement or in the Warrants to be complied with by the Company.

(c) The Warrant Agent may consult at any time with counsel satisfactory to it (who may be counsel for the Company) and the Warrant Agent shall incur no liability or responsibility to the Company or to any holder of any Warrant in respect of any action taken, suffered or omitted by it hereunder in good faith and in accordance with the opinion or the advice of such counsel.

(d) The Warrant Agent shall incur no liability or responsibility to the Company or to any holder of any Warrant for any action taken in reliance on any notice, resolution, waiver, consent, order, certificate or other instrument believed by it to be genuine and to have been signed, sent or presented by the proper party or parties.

(e) The Company agrees to pay to the Warrant Agent reasonable compensation for all services rendered by the Warrant Agent in the execution of this Agreement, to reimburse the Warrant Agent for all expenses, taxes and governmental charges and other charges incurred by the Warrant Agent in the execution of this Agreement and to indemnify the Warrant Agent and save it harmless against any and all liabilities, including judgments, costs and reasonable counsel fees, for anything done or omitted by the Warrant Agent in the execution of this Agreement except as a result of the Warrant Agent's negligence, willful misconduct or bad faith.

(f) The Warrant Agent shall be under no obligation to institute any action, suit or legal proceeding or to take any other action likely to involve expenses unless the Company or one or more registered holders of Warrants shall furnish the Warrant Agent with reasonable security and indemnity for any costs and expenses which may be incurred, but this provision shall not affect the power of the Warrant Agent to take such action as the Warrant Agent may consider proper, whether with or without any such security or indemnity. All rights of action under this Agreement or under any of the Warrants may be enforced by the Warrant Agent without the possession of any of the Warrants or the production thereof at any trial or other proceeding, and any such action, suit or proceeding instituted by the Warrant Agent shall be brought in its name as Warrant Agent, and any recovery of judgment shall be for the ratable benefit of the registered holders of the Warrants, as their respective rights and interests may appear.

(g) The Warrant Agent and any stockholder, director, officer, partner or employee of the Warrant Agent may buy, sell or deal in any of the Warrants or other securities of the Company or become pecuniarily interested in any transaction in which the Company may be interested, or contract with or lend money to or otherwise act as fully and freely as though it were not the Warrant Agent under this Agreement. Nothing herein shall preclude the Warrant Agent from acting in any other capacity for the Company or for any other legal entity.

(h) The Warrant Agent shall act hereunder solely as agent and its duties shall be determined solely by the provisions hereof.

(i) The Warrant Agent may execute and exercise any of the rights or powers hereby vested in it or perform any duty hereunder either itself or by or through its attorneys, agents or employees, and the Warrant Agent shall not be answerable or accountable for any such attorneys, agents or employees or for any loss to the Company resulting from such neglect or misconduct, provided reasonable care had been exercised in the selection and continued employment thereof.

(j) Any request, direction, election, order or demand of the Company shall be sufficiently evidenced by an instrument signed in the name of the Company by its Chief Executive Officer, President or a Vice President or its Secretary or an Assistant Secretary or its Treasurer or an Assistant Treasurer (unless other evidence in respect thereof be herein specifically prescribed); and any resolution of the Board of Directors may be evidenced to the Warrant Agent by a copy thereof certified by the Secretary or an Assistant Secretary of the Company.

Section 16. CHANGE OF WARRANT AGENT. The Warrant Agent may resign and be discharged from its duties under this Agreement by giving to the Company notice in writing, and to the holders of the Warrants notice by mailing such notice to the holders at their addresses appearing on the Warrant register, of such resignation, specifying a date when such resignation shall take effect. The Warrant Agent may be removed by like notice to the Warrant Agent from the Company and the like mailing of notice to the holders of the Warrants. If the Warrant Agent shall resign or be removed or shall otherwise become incapable of acting, the Company shall appoint a successor to the Warrant Agent. If the Company shall fail to make such appointment within a period of thirty (30) days after such removal or after it has been notified in writing of such resignation or incapacity by the resigning or incapacitated Warrant Agent or after the Company has received such notice from a registered holder of a Warrant (who shall, with such notice, submit his Warrant for inspection by the Company), then the registered holder of any Warrant may apply to any court of competent jurisdiction for the appointment of a successor to the Warrant Agent. Any successor Warrant Agent, whether appointed by the Company or by such a court, shall be a bank or trust company, in good standing, incorporated under New York or federal law. After appointment, the successor Warrant Agent shall be vested with the same powers, rights, duties and responsibilities as if it had been originally named as Warrant Agent without further act or deed and the former Warrant Agent shall deliver and transfer to the successor Warrant Agent all cancelled Warrants, records and property at the time held by it hereunder, and execute and deliver any further assurance or conveyance necessary for the purpose. Failure to file or mail any notice provided for in this Section, however, or any defect therein, shall not affect the validity of the resignation or removal of the Warrant Agent or the appointment of the successor Warrant Agent, as the case may be.

Section 17. IDENTITY OF TRANSFER AGENT. Forthwith upon the appointment of any transfer agent for the shares of Common Stock or of any subsequent transfer agent for the shares of Common Stock or other shares of Common Stock issuable upon the exercise of the rights of purchase represented by the Warrants, the Company will file with the Warrant Agent a statement setting forth the name and address of such transfer agent.

Section 18. NOTICES. Any notice pursuant to this Agreement to be given by the Warrant Agent or by the registered holder of any Warrant to the Company shall be sufficiently given if sent by first-class mail, postage prepaid, addressed (until another is filed in writing by the Company with the Warrant Agent) as follows:

Delcath Systems, Inc.  
1100 Summer Street  
Stamford, Connecticut 06905  
Attention: M. S. Koly  
Chief Executive Officer

and a copy thereof to:

Cummings & Lockwood LLC  
Four Stamford Plaza  
107 Elm Street  
Stamford, Connecticut 06902  
Attention: Paul G. Hughes, Esq.

Any notice pursuant to this Agreement to be given by the Company or by the registered holder of any Warrant to the Warrant Agent shall be sufficiently given if sent by first-class mail, postage prepaid, addressed (until another address is filed in writing by the Warrant Agent with the Company) as follows:

American Stock Transfer & Trust Company  
40 Wall Street  
New York, New York 10005  
Attention: [Michael Karfunkel]

Section 19. SUPPLEMENTS AND AMENDMENTS. The Company and the Warrant Agent may from time to time supplement or amend this Agreement in order to cure any ambiguity or to correct or supplement any provision contained herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising hereunder which the Company and the Warrant Agent may deem necessary or desirable and which shall not be inconsistent with the provisions of the Warrants and which shall not adversely affect the interest of the holders of Warrants.

Section 20. NEW YORK CONTRACT. This Agreement and each Warrant issued hereunder shall be deemed to be a contract made under the laws of the State of New York and shall be construed in accordance with the laws of New York applicable to agreements to be performed wholly within New York.

Section 21. BENEFITS OF THIS AGREEMENT. Nothing in this Agreement shall be construed to give to any person or corporation other than the Company, the Warrant Agent and the registered holders of the Warrants any legal or equitable right, remedy or claim under this Agreement; but this Agreement shall be for the sole and exclusive benefit of the Company, the Warrant Agent and the registered holders of the Warrants.

Section 22. SUCCESSORS. All the covenants and provisions of this Agreement by or for the benefit of the Company, the Warrant Agent or the Underwriter shall bind and inure to the benefit of their respective successors and assigns hereunder.

IN WITNESS WHEREOF, the parties have entered into this Agreement on the date first above written.

DELCATH SYSTEMS, INC.

By: \_\_\_\_\_  
Name:  
Title:

AMERICAN STOCK TRANSFER & TRUST  
COMPANY

By: \_\_\_\_\_  
Name:  
Title: