UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. _______)*

Hyseq, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

449163 30 2

(CUSIP Number)

William B. Sawch, Esq.
The Perkin-Elmer Corporation
761 Main Avenue
Norwalk, CT 06859-0001
(203) 761-2900

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

August 13, 1997

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box. [_]

Note: Six copies of this statement, including all exhibits, should be filed with the Commission. See Rule 13d-1(a) for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities and Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

1	NAME OF REPORTING PERSON S.S. OR I.R.S. IDENTIFICATION NO. OF ABOVE PERSON The Perkin - Elmer Corporation 06-0490270	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*--N/A	(a) [_] (b) [_]
3	SEC USE ONLY	
4	SOURCE OF FUNDS* WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) N/A	[_]
6	CITIZENSHIP OR PLACE OF ORGANIZATION NY	

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		
	7	SOLE VOTING POWER 766,921 Shares
	8	SHARED VOTING POWER N/A
	9	SOLE DISPOSITIVE POWER 766,921 Shares
	10	SHARED DISPOSITIVE POWER N/A

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 766,921 Shares	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES* N/A	[_]
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 6.25%	
14	TYPE OF REPORTING PERSON* CO	

Item 1. Security and Issuer

The class of equity securities to which this Schedule 13D relates is the Common Stock, par value $0.001, (the "Common Stock") of Hyseq, Inc., a Nevada corporation (the "Issuer"). The principal executive offices of the Issuer are located at 670 Almanor, Sunnyvale, California 94086.

Item 2. Identity and Background

This Schedule 13D is being filed by THE PERKIN - ELMER CORPORATION (herein, also referred to as the "Reporting Person" or "Perkin - Elmer"), a New York corporation. The address of the principal executive office of the Reporting Person is 761 Main Avenue, Norwalk, CT 06859 - 0001.

Together with its consolidated subsidiaries, The Perkin - Elmer Corporation develops, manufactures, and sells products in the analytical instruments and life science markets.

The name, principal residence or business address, present principal occupation and citizenship of each executive officer and director of the Reporting Person are set forth on Schedule 1 hereto, which is incorporated herein by reference.

During the past five years, neither the Reporting Person nor, to the knowledge of the Reporting Person, any of its executive officers or directors has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors) or has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding is or was subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

Item 3. Source and Amount of Funds or Other Considerations

The amount of funds used to purchase the 766,921 shares of Common Stock reported as beneficially owned herein was $10,000,000, all of which was provided from Reporting Person's working capital.

Item 4. Purpose of Transaction

The shares of Common Stock purchased by Perkin-Elmer have been acquired for investment purposes. Neither the Reporting Person nor, to the knowledge of the Reporting Person, any of its executive officers or directors, has any present plans or intentions which would result in or relate to any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D. Perkin-Elmer may, in the future, make additional purchases of Common Stock either in the open market or in private transactions depending on Perkin-Elmer's evaluation of the Issuer's business, prospects and financial condition, market for the Common Stock, other opportunities available to Perkin-Elmer, prospects for Perkin-Elmer's own business, general

economic conditions, money and stock market conditions and other future developments. However, Perkin-Elmer has no present intention to acquire any additional shares of Common Stock. Depending on the same factors, Perkin-Elmer may decide to sell all or part of its investment in the Common Stock, although it has no present intention to do so.

Item 5. Interest in Securities of the Issuer:

(a) The Reporting Person beneficially owns 766,921 shares of Common Stock. Based upon information contained in the most recently available filing by the Issuer with the Securities and Exchange Commission, such shares constitute approximately 6.25% of the outstanding shares of Common Stock.

(b) The Reporting Person has sole power to vote or to direct the vote, and sole power to dispose or to direct the disposition, of the shares referenced in Item 5(a).

(c) All transactions in the Common Stock by Perkin-Elmer that were effected during the past 60 days are as follows: (i) on June 19, 1997, Perkin-Elmer acquired 175,070 shares of Series B Convertible Preferred Stock (which converted automatically into 396,825 shares of Common Stock upon completion of the Issuer's Initial Public Offering on August 13, 1997, at a price equivalent to $12.60 per share) pursuant to a Stock Purchase Agreement (the "Stock Purchase Agreement"); and (ii) on August 13, 1997, the Reporting Person purchased 370,096 shares in a private placement pursuant to the Stock Purchase Agreement at a price of $13.51 per share. To the best knowledge of Perkin-Elmer, none of its executive officers or directors has effected any transactions in the Common Stock during the past 60 days.

(d) No person other than the Reporting Person has the right to receive or the power to direct the receipt of dividends from, or the proceeds of sale of, the shares of Common Stock beneficially owned by the Reporting Person.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

On May 28, 1997, Perkin-Elmer and the Issuer executed the Stock Purchase Agreement pursuant to which Perkin-Elmer agreed to purchase 175,070 shares of Series B Convertible Preferred Stock (which converted automatically into 396,825 shares of Common Stock upon completion of the Issuer's Initial Public Offering) on or before June 20, 1997 and additional shares having an aggregate value of $5 million on the earlier to occur of the Issuer's initial public offering or December 2, 1997. The Issuer completed its initial public offering on August 13, 1997, the date on which Perkin-Elmer purchased the additional 370,096 shares of Common Stock in a private placement. In connection therewith, Perkin-Elmer executed a lock-up agreement (the "Lock-Up Agreement") pursuant to which it agreed, subject to certain exceptions, not to transfer or dispose of, and not to enter into agreements transfering the economic risk of, Common Stock during the 180 day period after the date of the final prospectus (which was August 7, 1997) for the initial public offering without the prior written consent of Lehman Brothers Inc.

Item 7. Material to Be Filed as Exhibits

The shares purchased pursuant to the Stock Purchase Agreement, which is included herein as Exhibit 1 and is incorporated herein by this reference, are the subject of a Registration Rights Agreement pursuant to which Perkin-Elmer may require that the Issuer register its securities on or before August 13, 2002. A copy of the Registration Rights Agreement is included herein as Exhibit 2 and is incorporated herein by this reference. A copy of the Lock-Up Agreement is included herein as Exhibit 3 and is incorporated herein by this reference.

Signature

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

THE PERKIN - ELMER CORPORATION

Dated: August 20, 1997

By: /s/ Peter Barrett

Signature

Peter Barrett, Vice President

Name/Title

SCHEDULE 1

The following table sets forth the name, residence or business address, present principal occupation or employment of each of the executive officers and directors of Perkin-Elmer. Unless otherwise indicated, the address of each person listed below is the business address of Perkin-Elmer, 761 Main Avenue, Norwalk, Connecticut 06859-0001, and, unless otherwise indicated, each person listed below is a citizen of the United States of America.

DIRECTORS
- ---------

Mr. Joseph F. Abely, Jr.
Retired Chairman and
Chief Executive Officer
Sea-Land Corporation
1210 Corbin Street
Elizabeth, NJ 07207

Mr. Richard H. Ayers
Retired Chairman and
Chief Executive Officer
The Stanley Works
114 Old Mill Road
Avon, CT 06001

Mr. Jean-Luc Belingard
Director General
F. Hoffmann-LaRoche Ltd.
Roche Diagnostics Systems
Postfach - Grenzacherstrasse 124
4002 Basel, Switzerland
Mr. Belingard is a French citizen

Dr. Robert H. Hayes
Professor
Harvard Business School
Morgan Hall T-35
Boston, MA 02163

Mr. Donald R. Melville
4 Paul Revere Road
Worcester, MA 01609

Mr. Burnell R. Roberts
Chairman
Sweetheart Holdings Inc.
2340 Kettering Tower
Dayton, OH 45423

Mr. Georges C. St. Laurent, Jr.
Former Chief Executive Officer
Western Bank
12655 S.W. Center Street, Suite 500
Beaverton, OR 97005

Dr. Carolyn W. Slayman
Deputy Dean for Academic and Scientific Affairs
Yale University School of Medicine
333 Cedar Street
New Haven, CT 06520-8000

Mr. Orin R. Smith
Chairman and Chief Executive Officer
Engelhard Corporation
101 Wood Avenue
Iselin, NJ 08830-0770

Mr. Richard F. Tucker
Retired Vice Chairman
Mobil Corporation
11 Over Rock Lane
Westport, CT 06880

Mr. Tony L. White
Chairman, President and
Chief Executive Officer
The Perkin-Elmer Corporation

EXECUTIVE OFFICERS
- ------------------

Mr. Tony L. White
Chairman, President and
Chief Executive Officer
The Perkin-Elmer Corporation

Mr. Manuel A. Baez
Senior Vice President and
President, Analytical Instruments
The Perkin-Elmer Corporation

Dr. Peter Barrett
Vice President
The Perkin-Elmer Corporation

Mr. Ugo D. DeBlasi
Corporate Controller
The Perkin-Elmer Corporation

Dr. Michael W. Hunkapiller
Vice President
The Perkin-Elmer Corporation
Applied Biosystems Division
850 Lincoln Centre Drive
Foster City, CA 94404

Mr. Stephen O. Jaeger
Vice President,
Chief Financial Officer
and Treasurer
The Perkin-Elmer Corporation

Mr. Joseph E. Malandrakis
Vice President
The Perkin-Elmer Corporation

Mr. Michael J. McPartland
Vice President
The Perkin-Elmer Corporation

Dr. Mark C. Rogers
Senior Vice President,
Corporate Development and
Chief Technology Officer
The Perkin-Elmer Corporation

William B. Sawch, Esq.
Vice President, General Counsel
and Secretary
The Perkin-Elmer Corporation

EXHIBIT 1

HYSEQ, INC.

STOCK PURCHASE AGREEMENT

FOR

SERIES B CONVERTIBLE PREFERRED STOCK

MAY 28, 1997

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STOCK PURCHASE AGREEMENT

THIS PREFERRED STOCK PURCHASE AGREEMENT (the "Agreement") is made as of this 28th day of May, 1997, by and between HYSEQ, INC. (the "Company"), and The Perkin-Elmer Corporation (the "East Coast Purchaser") and Chiron Corporation (the "West Coast Purchaser"). The East Coast Purchaser and the West Coast Purchaser are sometimes severally referred to herein as the "Purchaser" and collectively as the "Purchasers."

SECTION 1. SALE AND PURCHASE OF STOCK.

SECTION 1.1. Sale and Purchase of Series B Convertible Preferred Stock

(a) By the First Closing Date (as defined in Section 1.2), the Company, by all requisite corporate action, shall have authorized the issuance and sale of the maximum number shares of its Series B Convertible Preferred Stock, par value $.001 per share (the "Preferred Stock"), and Common Stock, $.001 par value ("Common Stock"), contemplated to be sold pursuant to Section 1.2 hereof. The Preferred Stock shall have the rights, preferences and privileges set forth in the Amended and Restated Articles of Incorporation as amended (the "Articles"), and that certain Certificate of Designations, Preferences and Rights of Series B Preferred Stock (the "Certificate of Designation" and together with the Articles, the "Authorizing Documents") authorized by the Company's Board of Directors in accordance with the Articles and as set forth elsewhere herewith. The Preferred Stock is convertible into Common Stock on the terms set forth in the Certificate of Designation and the terms of this Agreement. The shares of Common Stock issuable and issued upon conversion of the Preferred Stock sold hereunder are referred to herein as "Conversion Shares."

(b) Subject to the terms and conditions herein set forth, the Company agrees to sell, issue and deliver to each Purchaser and each Purchaser agrees to buy from the Company the number of shares set forth under such Purchaser's name on Schedule 1.1(b) hereto.

SECTION 1.2. Closings.

(a) The purchase and sale of the First Closing Shares with respect to each Purchaser shall be at a closing (respectively, the "First Closing") set forth below such Purchaser's name on Schedule 1.2 attached hereto. As used herein, the term "First Closing Date" shall mean, with respect to each Purchaser, the date on which the First Closing for such Purchaser takes place.

(b) The purchase and sale of the Second Closing Shares with respect to each Purchaser shall be at a closing (respectively, the "Second Closing" and, collectively with the First Closing, the "Closings") set forth below such Purchaser's name on Schedule 1.2 attached hereto. As used herein, the term "Second Closing Date" shall mean, with respect to each Purchaser, the date on which the Second Closing for such Purchaser takes place.

(c) Each Closing shall take place at the offices of Sachnoff & Weaver, Ltd., 30 South Wacker Drive, Suite 2900, Chicago, Illinois 60606. At each Closing, the Company shall deliver to the Purchaser a certificate representing the number of Shares such Purchaser is purchasing, and the parties will promptly exchange such other originally executed documents contemplated by this Agreement. The consideration payable for the foregoing shares shall be paid by certified or bank cashier's check or wire transfer in New York Clearing House (next day) funds to the order of the Company's account at the Union Bank in San Francisco, California. With respect to each Purchaser, the shares of Preferred Stock to be sold at the First Closing are referred to herein as the "First Closing Shares" and the shares of Preferred Stock or Common Stock to be sold at the Second Closing are referred to herein as the "Second Closing Shares" and, together with the First Closing Shares, as the "Shares."

SECTION 2. THE COMPANY'S REPRESENTATIONS AND WARRANTIES

The Company represents and warrants to the Purchasers as follows:

SECTION 2.1. Organization, Good Standing and Qualification of the Company. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Nevada and has all requisite corporate power and authority to own and lease its properties and assets and to conduct its business as now conducted. The Company is qualified to do business as a foreign corporation and is in good standing in such states where the conduct of its business or its ownership or leasing of property requires such qualification and where the failure to so qualify would have a material adverse effect on the Company's financial condition.

SECTION 2.2. Authorization. The Company has all requisite corporate power and authority to execute and deliver this Agreement, the Registration Rights Agreement between the Company and each Purchaser (respectively for each Purchaser, the "Registration Rights Agreement") and to carry out the transactions contemplated hereby and thereby. The execution, delivery and performance of this Agreement and the Registration Rights Agreements by the Company have been duly authorized by all requisite corporate action, and this Agreement and the Registration Rights Agreements have been duly executed and delivered by the Company and constitute its valid and binding obligations, enforceable against the Company in accordance with their terms, except as such enforcement may be limited by bankruptcy, insolvency, moratorium, reorganization and other similar laws relating to or affecting the enforcement of debtors' obligations or creditors' rights generally, and except that the availability of specific performance, injunctive relief or other equitable remedies is subject to the discretion of the court before which any such proceeding may be brought. The Company shall obtain any authorization, consent or approval or other action by, or make any filing with any court or administrative body that may be required under the applicable federal or state securities laws in connection with the offer, issuance, sale or delivery of the Shares or Conversion Shares.

SECTION 2.3. No Conflict with Law or Documents. The execution, delivery and performance of this Agreement by the Company will not violate any provision of law, any rule or regulation of any governmental authority, or any judgment, decree or order of any court binding on the Company, and will not conflict with or result in any breach of any of the terms, conditions or provisions of, or constitute a default under, or result in the creation of any lien, security interest, charge or encumbrance upon any of the properties, assets or outstanding capital stock of the Company under its Articles, the Certificate of Designation or By-Laws, or any indenture, mortgage, lease, agreement or other instrument to which the Company is a party or by which it or any of its properties is bound.

SECTION 2.4. Capital Stock. The authorized capital stock of the Company consists of (i) 3,000,000 shares of Series A Preferred Stock, par value $.001 per share, of which 2,170,460 shares have been duly and validly issued and are currently outstanding, fully paid and nonassessable; (ii) 5,000,000 additional shares of preferred stock, par value $.001 per share, including, upon filing of the Certificate of Designation, 525,210 shares of Series B Preferred Stock, none of which are currently outstanding; and (iii) 20,000,000 shares of Common Stock, par value $.001 per share, of which 2,329,540 shares have been duly and validly issued and are currently outstanding, fully paid and nonassessable. At the First Closing, the Company shall have reserved 4,514,642 shares of its Common Stock, including 988,600 shares of its Common Stock which have been reserved for issuance under existing stock option plans and agreements ("Options") of which Options to purchase 727,264 shares are issued and outstanding; 526,042 shares of its Common Stock which have been reserved upon exercise of certain outstanding warrants ("Warrants"); and 3,000,000 shares reserved for issuance upon conversion of the authorized shares of Series A Preferred Stock, including 2,170,460 shares which have been reserved for issuance upon conversion of the outstanding Series A Preferred Stock (but excluding shares which shall have been reserved for issuance upon conversion of the outstanding Series B Preferred Stock). At each Closing, the Company shall have reserved for issuance such shares of Common Stock as is then necessary for issuance upon conversion of all outstanding Series B Preferred Stock. Except as set forth on Schedule 2.4, there are (i) no preemptive or similar rights to purchase or otherwise acquire from the Company shares of capital stock of the Company pursuant to any provision of law, the Articles or By-Laws of the Company, by agreement or otherwise and (ii) except for the 2,170,460 shares of Series A Preferred Stock outstanding, no outstanding subscriptions, warrants, options or other rights or commitments of any character to subscribe for or purchase from the Company, or obligating the Company to issue, any shares of capital stock of the Company or any securities convertible into or exchangeable for such shares. The Company intends to amend its Articles to increase the number of its authorized shares of Common stock to 50,000,000.

SECTION 2.5. Shares and Conversion Shares. The Shares, when issued and delivered against payment therefor in accordance with this Agreement, will be duly and validly issued, fully paid and nonassessable and will have the rights, preferences and privileges specified in the Articles. The requisite number of shares of duly authorized and unissued Conversion Shares will have been duly authorized and reserved for issuance upon the conversion or exercise of the Preferred Stock, and no further corporate action will be required for the valid issuance of

shares of Common Stock constituting the Conversion Shares. The Conversion Shares will, at the time of Closing and thereafter, not be subject to preemptive or similar rights of any person, and when issued upon conversion of the Preferred Stock in accordance with this Agreement and the Articles will be duly and validly issued, fully paid and nonassessable.

SECTION 2.6. Consents and Approvals. Except for filings under Federal and applicable state securities laws, if any, no permit, consent, approval or authorization of, or declaration to or filing with, any governmental or regulatory authority or other person, not made or obtained, is required in connection with the execution or delivery of this Agreement by the Company, the offer, issuance, sale or delivery of the Shares or Conversion Shares, or the carrying out by the Company of the other transactions contemplated hereby.

SECTION 2.7. Articles of Incorporation, Certificate of Designation and By-Laws. The copy of the Company's Articles, attached hereto as Exhibit A, is a complete, true and correct copy of such document and is in full force and effect. The copy of the Certificate of Designation attached hereto as Exhibit B, is a complete, true and correct copy of such document as it will be in full force and effect at Closing. The copy of the Company's By-Laws, as amended to date, attached hereto as Exhibit C, is a complete, true and correct copy of such document and is in full force and effect.

SECTION 2.8. Subsidiaries. Except for Hyseq Diagnostics, Inc. (the "Subsidiary"), the Company has no subsidiaries and does not own any equity interest, directly or indirectly, in any other corporation, partnership, joint venture or other enterprise or entity. The Company owns all of the outstanding capital stock of the Subsidiary.

SECTION 2.9. Compliance with Laws. The Company is in compliance with all laws, ordinances, rules and regulations of governmental authorities applicable to or affecting it, its properties or its business except where noncompliance would not have a material adverse effect on the Company, and the Company has not received notice of any claimed default with respect to such laws, ordinances, rules and regulations.

SECTION 2.10. Financial Statements.

(a) The audited financial statements of the Company as of and for the year ending December 31, 1994, 1995 and 1996 and the unaudited financial statements of the Company as of and for the three months ending March 31, 1997 are set forth in Exhibits D-1 and D-2 (the "Financial Statements"). Each of such Financial Statements is accurate and complete in all material respects, is consistent with the books and records of the Company and has been prepared in accordance with generally accepted accounting principles, consistently applied, provided that the unaudited quarterly Financial Statements do not contain footnote disclosure and are subject to the normal year end adjustments.

(b) The balance sheets included in the Financial Statements reflect all liabilities and obligations of the Company, whether absolute, accrued, contingent or otherwise as of the dates thereof, that are of a nature required to be set forth as a liability on a balance sheet.

SECTION 2.11. Tax Matters. The Company and the Subsidiary have filed all Federal, state and other tax returns which are required to be filed (other than those whose failure to be filed would not have a material adverse effect on the Company) and have paid all taxes reflected thereon which have become due and payable and which are not being contested in good faith by appropriate proceedings. None of such returns nor the Subsidiary has audited for any period, and neither the Company nor the Subsidiary has received notice that any such returns will be audited for any period. No deficiency assessment with respect to or proposed adjustment of the Company's or the Subsidiary's Federal, state, county or local taxes is pending or, to the best of the Company's knowledge, threatened. There is no tax lien, whether imposed by any federal, state, county or local taxing authority, outstanding against the assets, properties or business of the Company or the Subsidiary.

SECTION 2.12. Agreements Affecting the Company's Capital Stock. Except for this Agreement and as set forth on Schedule 2.12, there are no agreements, written or oral, between the Company and any record owner of its capital stock, or, to the knowledge of the Company among any record owners of its capital stock, relating to the acquisition, disposition, repurchase, registration under the federal securities laws, or voting of the capital stock of the Company.

SECTION 2.13. Patents, Trademarks, Proprietary Rights. Set forth on Schedule 2.13 is a list of patents issued or assigned to the Company. The Company owns, or has the right to use, and has the right to bring actions for the infringement of, all patents, trademarks, service marks, trade names, inventions, technology, know-how, formulae, trade secrets, confidential and proprietary information, computer software programs, and other intellectual property necessary for the operation of the Company's business as it is currently conducted, and no such intellectual property is used pursuant to a license from a third party or licensed to a third party. Except as permitted by license, the Company's operation of its business does not, to its knowledge, infringe on the patents, trademarks, service marks, trade names, copyrights, trade secrets or other intellectual property of any other person, and no claim has been made, notice given or dispute arisen concerning such infringement. U.S. Patent No. 5,202,231 is in full force, has been assigned to the Company free and clear of all liens, encumbrances and other claims, and is not subject to any cancellation or reexamination proceeding or any other proceeding challenging its extent or validity. No order, holding, decision or judgment has been rendered by any governmental authority, and no agreement, consent or stipulation exists, which would limit the Company's use of any intellectual property.

SECTION 2.14. Contracts and Agreements. The Company is not (x) to its knowledge in default under any lease, employment contract, loan agreement, or other instrument, agreement, or contract to which it is a party or by which it is bound, (y) in violation of its Articles or By-Laws, each as amended to the date hereof, or (z) to its knowledge in default with

respect to any order, writ, injunction or decree of any court or governmental agency binding on the Company, and no event has occurred which with notice or lapse of time, or both, would create any default or violation described in clauses (x) through (z). The Company has no knowledge of any material breach or anticipated material breach by any other party to any agreements, instruments, commitments, plans or arrangements to which it is a party or by which it is bound.

SECTION 2.15. Litigation, etc. There are no actions, suits, proceedings or investigations pending against the Company before any court or governmental agency (nor, to the best of the Company's knowledge, is there any overt threat thereof) that is or would be expected to have a material adverse effect on the Company or its business or that question the validity of this Agreement or the transactions contemplated hereby. Except as set forth on Schedule 2.15 or described in the Information Statement, there are no actions, suits, proceedings or investigations by the Company currently pending or which the Company presently intends to initiate.

SECTION 2.17. Title to Properties and Assets; Liens, etc. The Company has an assignment of U.S. Patent No. 5,202,231 and has good and marketable title to its properties and assets described in the Financial Statements and all properties thereafter acquired. The Company holds such property (other than intellectual property described in Section 2.13, which is held as described in that section) free and clear of all mortgages, pledges, liens, leases, encumbrances or charges, other than (i) the lien of current taxes not yet due and payable, and (ii) possible minor liens and encumbrances that do not in any case materially detract from the value of the property subject thereto or materially impair the operations of the Company and which have not arisen otherwise than in the ordinary course of business.

SECTION 2.17. Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business as now being conducted by it, the lack of which would materially and adversely affect the business, properties, prospects or financial condition of the Company and believes it can obtain, without undue burden or expense, any similar authority for the conduct of its business as planned to be conducted. The Company is not in default in any material respect under any of such franchises, permits, licenses, or other similar authority.

SECTION 2.18. Disclosure. The Company has fully provided Purchaser with all the information which Purchaser has requested for deciding whether to purchase the Shares. Neither this Agreement, the Information Statement attached as Schedule 2.18 nor any other statements or certificates made or delivered in connection herewith or therewith contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading, except that the Information Statement (i) does not contemplate this sale or any other sale of capital stock of the Company and (ii) reflects the conversion of all of the Company's preferred stock and certain other prospective transactions or events that may not have happened yet but which are contemplated to happen in connection with an initial public offering.

SECTION 2.19. Changes. From March 31, 1997, until the date hereof, there has not been, and from the date hereof until the First Closing, and except as set forth herein, there will not be:

(a) any adverse change in the assets, liabilities, financial condition or operating results of the Company, except for changes in the ordinary course of business, including the expenditure of funds in connection with the Company's operations, which have not been, individually or in the aggregate, materially adverse;

(b) to the Company's knowledge, any other event or condition of any character which can reasonably be expected to materially and adversely affect the assets, properties, financial condition, operating results or business of the Company (as such business is presently conducted);

(c) any change in the authorized capital of the Company;

(d) any material change in the manner of business or operations of the Company; or

(e) any commitment (contingent or otherwise) to do any of the foregoing.

SECTION 2.20. Insurance. The Company has insured, by reputable insurers, its assets that are of an insurable character against risks of liability, casualty and fire in adequate amounts and consistent with prudent industry practice. The Company has made, and will make, available to any Purchaser, upon its request, a list of all insurance coverage carried by the Company, the name of the carrier, the terms and amount of coverage.

SECTION 2.21. Labor Agreements and Actions. The Company is not bound by or subject to (and none of its assets or properties is bound by or subject to) any written or oral, express or implied, contract, commitment or arrangement with any labor union, and no labor union has requested or, to the knowledge of the Company, has sought to represent any of the employees, representatives or agents of the Company.

SECTION 2.22. Loans and Advances. Except as set forth in Schedule 2.22, the Company does not have any outstanding loans or advances to any person and is not obligated to make any such loans or advances, except, in each case, for advances to employees of the Company in respect of reimbursable business expenses anticipated to be incurred by them in connection with their performance of services for the Company.

SECTION 2.23. Employees. No officer or key employee of the Company has advised the Company (orally or in writing) that he or she intends to terminate employment with the Company. The Company, to the best of its knowledge, has complied in all material respects

with all applicable laws relating to wages, hours, equal opportunity, collective bargaining and the payment of Social Security and other taxes. The Company has complied in all material respects with the Employee Retirement Income Security Act of 1974, as amended ("ERISA").

SECTION 2.24. Environmental Protection. The Company, the operation of its business, and, to the knowledge of the Company, the real property that the Company leases at 670 Almanor Avenue, Sunnyvale, California 94086 (the "Premises") are in compliance with all applicable Environmental Laws (as defined below) and orders or directives of any governmental authorities having jurisdiction under such Environmental Laws (as defined below), including, without limitation, any Environmental Laws or orders or directives with respect to any cleanup or remediation of any release or threat of release of Hazardous Substances. The Company has not received any citation, directive, letter or other communication, written or oral, or any notice of any proceeding, claim or lawsuit, from any person arising out of the ownership or occupation of the Premises, or the conduct of its operations, and the Company is not aware of any basis therefor. The Company has obtained and maintains in full force and effect all necessary permits, licenses and approvals required by all Environmental Laws known by the Company to be applicable to the Premises and the business operations of the Company conducted thereon. For the purposes of this Agreement, the term "Environmental Laws" shall mean any Federal, state or local law or ordinance or regulation pertaining to the protection of human health or the environment, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Sections 9601, et seq., the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Section 11001, et seq. and the Resource Conservation and Recovery Act, 42 U.S.C. Sections 6901, et seq. For purposes of this Agreement, the term "Hazardous Substances" shall include oil and petroleum products, asbestos, polycholorinated biphenyls, urea formaldehyde and any other materials classified as hazardous or toxic under any Environmental Laws in such amounts as would constitute a violation of the Environmental Laws.

SECTION 3. PURCHASERS' REPRESENTATIONS AND WARRANTIES

Each Purchaser understands that, except as otherwise provided in Schedule 1.1(b), neither the Shares nor the Conversion Shares will be registered under the Securities Act of 1933, as amended (the "1933 Act"), on the grounds that the sales provided for in this Agreement are exempt pursuant to Section 4(2) of the 1933 Act and/or Regulation D promulgated under the 1933 Act, and that the reliance of the Company on such exemptions is predicated in part on the Purchaser's representations, warranties, covenants and acknowledgments set forth in this Section 3. Each purchaser, solely with respect to itself, makes the following representations, warranties, covenants and acknowledgments to the Company:

SECTION 3.1. Authority. The Purchaser has all requisite corporate power and authority to execute and deliver this Agreement and to carry out the transactions contemplated hereby. The execution, delivery and performance of this Agreement by the Purchaser has been duly authorized by all requisite corporate action, and this Agreement has been duly executed and delivered by the Purchaser and constitutes its valid and binding obligations, enforceable against

the Purchaser in accordance with its terms, except as such enforcement may be limited by bankruptcy, insolvency, moratorium, reorganization and other similar laws relating to or affecting the enforcement of debtors' obligations or creditors' rights generally, and except that the availability of specific performance, injunctive relief or other equitable remedies is subject to the discretion of the court before which any such proceeding may be brought.

SECTION 3.2. Place of Business. The Purchaser represents and warrants to the Company that its principal business address is as set forth elsewhere herein.

SECTION 3.3. Purchase Without a View to Distribution. The Purchaser represents and warrants to the Company that the Shares to be purchased by such Purchaser (and any Conversion Shares) are being acquired by the Purchaser for its own account, not as a nominee or agent, and not with a view to resale or distribution within the meaning of the 1933 Act, and the rules and regulations thereunder, and the Purchaser will not distribute the Shares or Conversion Shares, if any, in violation of the 1933 Act.

SECTION 3.4 Restrictions on Transfer. The Purchaser (i) acknowledges that the Shares and Conversion Shares, if any, are not registered under the 1933 Act and that the Shares and Conversion Shares, if any, to be acquired by it must be held indefinitely by the Purchaser unless they are subsequently registered under the 1933 Act or an exemption from registration is available, (ii) is aware that any routine sales, under Rule 144 of the SEC promulgated under the 1933 Act, of the Shares and/or Conversion Shares, if any, may be made only in limited amounts and in accordance with the terms and conditions of that Rule and that in such cases where the Rule is not applicable, compliance with some other registration exemption will be required, (iii) is aware that Rule 144 is not presently available for use by the Purchaser for resale of any such Shares and Conversion Shares, and (iv) acknowledges that the Shares and Conversion Shares, if any, are subject to the restrictions on transfer set forth in Section 8 of this Agreement and that neither the Shares nor the Conversion Shares, if any, may be transferred or disposed of by the Purchaser or other holder thereof except in accordance with Section 8 hereof.

SECTION 3.5. Additional Representations of the Purchaser. The Purchaser represents that: (i) it is an "accredited investor" as such term is defined in Rule 501 promulgated under the 1933 Act; (ii) its financial situation is such that it can afford to bear the economic risk of holding the Shares and Conversion Shares, if any, for an indefinite period of time and suffer complete loss of its investment in the Shares and Conversion Shares; (iii) its knowledge and experience in financial and business matters are such that it is capable of evaluating the merits and risks of its purchase of the Shares and Conversion Shares as contemplated by this Agreement; (iv) it understands that the Shares and Conversion Shares are a speculative investment; (v) it understands and has taken cognizance of all the risk factors related to the purchase of the Shares and Conversion Shares, if any; (vi) it has obtained all documents and materials and all other information it deems necessary or desirable to evaluate an investment in the Shares; and (vii) it has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the sale of the Shares.

SECTION 4. CONDITIONS PRECEDENT TO PURCHASER'S OBLIGATIONS

Each Purchaser's obligation to purchase and make payment for the Shares to be purchased at the First Closing is subject, at its option, to the satisfaction of each of the following conditions as of the First Closing Date, and each Purchaser's obligation to purchase and make payment for the Shares to be purchased at the Second Closing is subject, at its option, to the satisfaction of each of the conditions set forth in Section 4.3, 4.4 and 4.5 as of the Second Closing Date, it being understood that the conditions below are several with respect to each Purchaser and that the failure or refusal of one Purchaser to consummate a Closing or perform any other obligations hereunder shall not affect the obligations of the other Purchaser hereunder:

SECTION 4.1. Proceedings and Certain Documents. All proceedings to be taken in connection with the transactions contemplated by this Agreement to be consummated on or prior to the Closing Date, and all documents incident thereto, shall be reasonably satisfactory in form and substance to the Purchaser.

SECTION 4.2. Representations and Warranties. On the First Closing Date, the representations and warranties contained in Section 2 hereof shall be true and correct in all material respects with the same effect as though made on and as of the First Closing Date except (i) as to such representations and warranties made as of an earlier, specific date then as of such date, and the Company shall have so certified to the Purchaser in writing; (ii) as disclosed in writing (the "Disclosure Notice") to the Purchaser at the First Closing with specific reference to this Section 4.2, or (iii) that the number of issued and outstanding shares of the Company's capital stock may be affected pursuant to (A) issuance of Shares as contemplated herein or as described in any schedule hereto, (B) shares of Common Stock issued upon the exercise of any or all Options or Warrants, or (C) any conversions of issued and outstanding shares of Series A Preferred Stock. If the Company delivers a Disclosure Notice to Purchaser, Purchaser may elect either (i) to terminate this Agreement by written notice delivered to the Company within 10 days of the Disclosure Notice and neither party shall have any liability to the other or (ii) proceed with the Closings and the Company shall have no liability to Purchaser with respect to the items specified in the Disclosure Notice.

SECTION 4.3. Performance. All the covenants, agreements and conditions contained in this Agreement to be performed or complied with by the Company on or prior to the Closing Date with respect to the Purchaser purchasing Shares on such Closing Date shall have been performed or complied with in all material respects, and the Company shall have so certified to the Purchaser in writing.

SECTION 4.4. Opinion of Counsel to the Company. On the Closing Date, the Purchaser shall have received an opinion from Sachnoff & Weaver, Ltd., counsel for the Company, dated the Closing Date, addressed to the Purchaser, in form attached hereto as Exhibit E (except that on the Second Closing Dates, as to matters set forth in numbered

paragraphs 5 and 6 of Exhibit E, counsel need only opine as to the status of such matters as of the date of the Second Closing Date).

SECTION 4.5. No Proceeding or Litigation. No suit, action, or other proceeding seeking to restrain, prevent or change the transactions contemplated hereby or otherwise questioning the validity or legality of the transactions contemplated in this Agreement shall have been instituted and be pending.

SECTION 4.6. Board Approval. Solely with respect to the obligations of the East Coast Purchaser, the Board of Directors of the East Coast Purchaser shall have approved the execution and delivery of this Agreement and the Registration Rights Agreement.

SECTION 4.7. Additional Agreements. The Registration Rights Agreement and the Collaboration Agreement between the Company and the Purchaser (respectively for each Purchaser, the "Collaboration Agreement") shall have been executed and delivered by the Company to the applicable Purchaser.

SECTION 5. CONDITIONS PRECEDENT TO THE COMPANY'S OBLIGATIONS

The Company's obligation to sell the Shares to be purchased by the Purchaser at the First Closing is subject, at the Company's option, to the satisfaction of each of the following conditions as of the First Closing Date, and the Company's obligation to sell the Shares to be purchased by the Purchaser at the Second Closing is subject, at the Company's option, to the satisfaction of conditions set forth in Sections 5.2 and 5.3 (and Section 5.1 if the Second Closing is for Preferred Stock) as of the Second Closing Date, it being understood that the conditions below are several with respect to each Purchaser and that the failure or refusal of the Company to consummate a Closing for one Purchaser hereunder shall not be a condition to the obligations of the Company with respect to the other Purchaser:

SECTION 5.1 Representations and Warranties. On the Closing Date, the representations and warranties contained in Section 3 hereof shall be true and correct in all material respects with the same effect as though made on and as of the Closing Date except as such representations and warranties relate to an earlier, specific date then as of such date, and the Purchaser shall have so certified to the Company in writing.

SECTION 5.2. Performance. All the covenants, agreements and conditions contained in this Agreement to be performed or complied with by the Purchaser on or prior to the Closing Date shall have been performed or complied with in all material respects, and the Purchaser shall have so certified to the Company in writing.

SECTION 5.3. No Proceeding or Litigation. No suit, action, or other proceeding seeking to restrain, prevent or change the transactions contemplated hereby or otherwise questioning the validity or legality of the transactions contemplated in this Agreement shall have been instituted and be pending.

SECTION 6. COVENANTS OF THE COMPANY

SECTION 6.1. Use of Proceeds. The proceeds of the sale of the Offering shall be used for general corporate purposes.

SECTION 6.2. Properties, Business, Insurance. The Company shall maintain and cause each of its subsidiaries, if any, to maintain as to their respective properties and businesses, with financially sound and reputable insurers, insurance against such casualties and contingencies and of such types and in such amounts as is customary for companies similarly situated, which insurance shall be deemed by the Company to be sufficient.

SECTION 6.3. Financial Statements.

The Company shall furnish to the holders of the Preferred Stock, and the Conversion Shares, if any, then outstanding (i) as soon as available but no later than 120 days of the end of each fiscal year an audited consolidated balance sheet, and related, audited consolidated statements of income and cash flows and stockholders' equity of the Company and its subsidiaries, if any, and as at the end of and for such fiscal year prepared in accordance with generally accepted accounting principles, consistently applied, and accompanied by the opinion of an independent public accountant of recognized national standing selected by the Board; and (ii) as soon as available but no later than 90 days of the end of each fiscal quarter an unaudited consolidated balance sheet, and related, unaudited consolidated statements of income and cash flows and stockholders' equity of the Company and its subsidiaries, if any, and as at the end of and for such fiscal quarter prepared in accordance with generally accepted accounting principles, consistently applied, provided that such quarterly financial statements need not contain footnotes and are subject to normal year end adjustments.

All such financial statements, reports or other information (other than publicly available information) provided to any Purchaser pursuant to this Section 6.3 shall be deemed to be confidential information of the Company. The Purchaser agrees to use reasonable efforts to prevent the disclosure of such confidential information to any other person (excluding its officers, employees, agents and counsel who have agreed to prevent such disclosure) except (i) as may be necessary or desirable in connection with a request by a governmental agency, regulatory or supervisory authority or court having or claiming jurisdiction over such Purchaser, (ii) information obtained from a third party which is not subject to the provisions of any confidentiality agreement in favor of the Company, and (iii) in connection with the enforcement of such Purchaser's rights hereunder or under the Articles and/or the Certificate of Designation. Without limiting the generality of the foregoing, the Company may require any person receiving any confidential information of the Company to enter into a separate confidentiality and non-disclosure agreement, in form and substance reasonably satisfactory to the Company and such person.

SECTION 6.4. Restrictive Agreements Prohibited. Neither the Company nor its subsidiaries, if any, shall become a party to any agreement which by its terms restricts the Company's performance of this Agreement, the Articles, the Certificate, the Registration Rights Agreement or the Collaboration Agreement.

SECTION 6.5. Compliance with Laws. The Company shall comply with all applicable laws, rules, regulations and orders, noncompliance with which could materially adversely affect its business or condition, financial or otherwise.

SECTION 6.6. Keeping of Records and Books of Account. The Company shall keep, accurate records and books of account, in which entries will be made in accordance with generally accepted accounting principles consistently applied, reflecting all financial transactions of the Company and such subsidiaries, if any, and in which, for each fiscal year, all proper reserves for depreciation, depletion, obsolescence, amortization, taxes, bad debts and other purposes in connection with its business shall be made.

SECTION 6.7. Reserve for Conversion Shares. The Company shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, for the purpose of effecting the conversion of the Preferred Stock and otherwise complying with the terms of this Agreement, such number of its duly authorized shares of Common Stock as shall be sufficient to effect the conversion of the Preferred Stock from time to time outstanding or otherwise to comply with the terms of this Agreement. If at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of the Preferred Stock or otherwise to comply with the terms of this Agreement, the Company will forthwith take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes. The Company will obtain any authorization, consent, approval or other action by or make any filing with any court or administrative body that may be required under applicable federal or state securities laws in connection with the issuance or delivery of shares of Common Stock upon conversion of the Preferred Stock; provided, however, that except as set forth in Section 8.6 nothing herein shall be deemed to require the Company to register the Common Stock in any jurisdiction. The Company will not, by amendment to its Articles or through any reorganization, reclassification, consolidation, merger, sale of assets, dissolution, issue or sale of securities or other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of the Preferred Stock or the Conversion Shares, if any, and will at all times carry out all such terms and take all such action as may be necessary or appropriate in order to protect the conversion rights of the holders of the Preferred Stock.

SECTION 6.8. Trust Shares. The Company agrees to repurchase and cancel all shares of the Company's capital stock held in the Hyseq One Trust prior to or concurrently with the Second Closing Date for the East Coast Purchaser.

SECTION 7. COVENANTS OF THE PURCHASER.

SECTION 7.1. Limitations on Purchase of Additional Securities. Each Purchaser covenants and agrees with the Company as follows:

(a) Without the prior written consent of the Company, neither the Purchaser nor any of its Affiliates will:

(i) acquire or offer, propose, or agree to acquire, directly or indirectly, by purchase, tender or exchange offer or otherwise, beneficial ownership (as defined in Rule 13d-3 under the Exchange Act) of shares of Common Stock or other securities of the Company entitled to vote generally in the election of directors or securities convertible into or exercisable for shares of Common Stock or such other securities (collectively, "Voting Securities"), or rights or options to acquire such ownership, if such Voting Securities, together with all other Voting Securities beneficially owned by the Purchaser and its Affiliates would exceed 9.9% of the outstanding Voting Securities; provided, however, that, the foregoing restriction shall not be deemed to be violated if the percentage of outstanding Voting Securities beneficially owned by the Purchaser and its Affiliates is increased as a result of a recapitalization of the Company, a repurchase of securities by the Company or any other action taken by the Company; or

(ii) make, or in any other way promote or participate in, directly or indirectly, any "solicitation" of "proxies" from stockholders to vote (as used in the proxy rules of the Securities and Exchange Commission) (i) in a contest regarding the election of directors of the Company; or (ii) in a contest or on a proposition regarding any business combination, restructuring, liquidation, sale of assets, extraordinary dividend or other extraordinary transaction involving the Company, provided that nothing herein shall limit the Purchaser's right to vote its Voting Securities in accordance with what it deems to be its best interests.

(b) If the percentage of the outstanding Voting Securities beneficially owned by the Purchaser and its Affiliates exceeds 9.9% of the outstanding Voting Securities (except as a result of a recapitalization of the Company, a repurchase of Voting Securities by the Company, or any other action taken by the Company or except with the prior written consent of the Company), the Purchaser and its Affiliates shall take such action as may be required to cause that number of such shares of Voting Securities in excess of 9.9% to be counted for purposes of determining a quorum but to abstain on all matters presented for vote.

(c) The covenants set forth in Sections 7.1(a) and 7.1(b) shall terminate upon the first to occur of any of the following:

(i) it is publicly disclosed or the Purchaser otherwise learns that another person or group has acquired or offered, proposed or agreed to acquire, directly or indirectly, by purchase, tender or exchange offer or otherwise, beneficial ownership of Voting Securities, or rights or options to acquire such ownership, which Voting Securities, together with

all other Voting Securities beneficially owned by such person or group would constitute a majority of the outstanding Voting Securities; or

(ii) subsequent to the second anniversary of the Company's initial public offering, another person or group (other than management or the Board of Directors of the Company) solicits proxies with the intention of replacing a majority of the members of the Board of Directors of the Company; or

(iii) any amendment of the Articles or Bylaws of the Company is effected without the consent of the Purchaser and such amendment adversely affects the Purchaser in a manner different from the manner in which such amendment affects holders of other shares of capital stock of the Company other than those held by the Purchaser; or

(iv) the Company publicly discloses, or there is submitted to the shareholders of the Company a proposal for, the merger, consolidation, combination or other reorganization of the Company whereby holders of at least 80% of the outstanding Voting Securities immediately prior to such merger, consolidation, combination or other reorganization will not hold at least 60% of the outstanding Voting Securities of the surviving entity immediately after such merger, consolidation, combination or other reorganization; or

(v) the Company publicly discloses, or there is submitted to the shareholders of the Company a proposal for, the sale of all or substantially all of the assets of the Company or any other similar transactions; or

(vi) a petition of bankruptcy or any petition for relief under the provisions of the federal bankruptcy act or any other state or federal law for the relief of debtors is filed by the Company or is filed by creditors of the Company and remains undismissed for a period of 90 days after the filing thereof or a receiver or trustee is appointed to take possession of the property or assets of the Company or the Company executes an assignment of all or substantially all of its assets, not in the ordinary course, for the benefit of creditors; or

(vii) as to each Purchaser, there shall exist a material breach of the Company of such Purchaser's Collaboration Agreement, which breach shall remain unremedied beyond the applicable cure period set forth therein, or the Company shall have terminated such Collaboration Agreement prior to the expiration of its term or absent a breach by Purchaser; or

(viii) five years following the date of this Agreement; or

(ix) the Company sells capital stock to another person or entity that is a party to a business collaboration or other similar agreement with the Company (which expressly shall not include any agreement relating solely to the raising of capital), which organization is not subject to a restriction at least as restrictive as that set forth in this Section 7.1, in which case Purchasers shall be bound by such less restrictive provisions.

SECTION 8. COMPLIANCE WITH 1933 ACT; RESTRICTIONS ON TRANSFERABILITY OF PREFERRED STOCK AND CONVERSION SHARES;

SECTION 8.1. Compliance with 1933 Act. The Preferred Stock, and the Conversion Shares, if any, shall not be transferable, except upon the conditions specified in this Section 8, which conditions are intended to insure compliance with the provisions of the 1933 Act, applicable state securities laws and Section 1361(a) of the Internal Revenue Code of 1986 or any successor code or law in respect of any such transfer.

SECTION 8.2. Restrictive Legend. Each certificate representing the Preferred Stock and the Conversion Shares and any shares of Common Stock or other securities issued in respect of such Preferred Stock or the Conversion Shares upon any stock split, stock dividend, recapitalization, merger, consolidation or similar event, shall (unless otherwise permitted by the provisions of Section 8.4 below) be stamped or otherwise imprinted with the following legend:

"THESE SHARES HAVE NOT BEEN REGISTERED UNDER THE FEDERAL OR APPLICABLE STATE SECURITIES LAWS AND INSTEAD ARE BEING ISSUED PURSUANT TO EXEMPTIONS CONTAINED IN SAID LAWS. THE SHARES REPRESENTED BY THIS CERTIFICATE MAY NOT BE TRANSFERRED UNLESS (1) A REGISTRATION STATEMENT WITH RESPECT TO SUCH SHARES SHALL BE EFFECTIVE UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR (2) THE COMPANY SHALL HAVE RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO IT THAT NO VIOLATION OF SUCH ACT OR SIMILAR STATE ACTS WILL BE INVOLVED IN SUCH TRANSFER, OR (3) THE COMPANY SHALL HAVE RECEIVED A "NO ACTION" LETTER FROM THE SECURITIES EXCHANGE COMMISSION COVERING SUCH TRANSFER AND AN OPINION AS REFERRED TO ABOVE RELATING TO STATE LAW; TRANSFERABILITY IS FURTHER SUBJECT TO THE PROVISIONS OF A PREFERRED STOCK PURCHASE AGREEMENT, A COPY OF WHICH AGREEMENT IS ON FILE AT THE PRINCIPAL OFFICE OF THE COMPANY."

SECTION 8.3. Restrictions on Transferability. The Company shall not be required to register the transfer of the Preferred Stock or any Conversion Shares on the books of the Company unless: (i) such securities have been registered under applicable federal and state securities laws or (ii) the Company shall have been provided with an opinion of counsel (from counsel reasonably acceptable to the Company) reasonably satisfactory to it prior to such transfer to the effect that registration under the 1933 Act or any applicable state securities law is not required in connection with the transaction resulting in such transfer. Each certificate representing the Preferred Stock and the Conversion Shares, if any, issued upon any transfer as above provided shall bear the restrictive legend set forth in Section 8.2 above, except that such restrictive legend shall not be required if the opinion of counsel satisfactory to the Company

referred to above is to the further effect that such legend is not required in order to establish compliance with the provisions of the 1933 Act and any applicable state securities law. The cost of any opinion delivered under this Section 8.3 shall be borne by the party requesting the transfer in question.

SECTION 8.4. Procedures on Sale of Stock to Third Parties by the Purchaser. Except as otherwise expressly provided herein, the Purchaser hereby agrees that it shall not sell any Restricted Securities as defined under the 1933 Act or the rules and regulations promulgated thereunder, except in accordance with the following procedures:

(a) The Purchaser shall first deliver to the Company a written notice (the "Section 8.4 Offer Notice"), which Section 8.4 Offer Notice shall (i) specifically identify the party or parties to whom or which the Purchaser proposes to sell Restricted Securities (such party or parties hereinafter referred to as the "Identified Parties"), pursuant to a bona fide written offer from such Identified Parties ("Third Party Offer"), (ii) include a copy of the Third Party Offer, and (iii) be irrevocable for the Offer Period, offering (the "Section 8.4 Offer") to the Company all of the Company's securities proposed to be sold by the Purchaser to such Identified Parties at the purchase price and on the terms specified therein. The Company shall have the right and option, at its sole discretion, for a period of 30 days after its receipt of the Section 8.4 Offer Notice (the "Offer Period"), to accept all, but not less than all, of the Restricted Securities offered at the purchase price and upon the terms stated in the Section 8.4 Offer Notice. Such acceptance will be made by delivery of a written notice to the Purchaser within the Offer Period.

(b) Sales of Restricted Securities under the terms of Section 8.4(a) above shall be made at the offices of the Company on a mutually satisfactory business day within 30 days after the election by the Company to purchase such Restricted Securities. Delivery of certificates or other instruments evidencing such Restricted Securities duly endorsed for transfer, accompanied by investment representations and other documents customary in transactions of this type, shall be made on such date against payment of the purchase price therefor.

(c) If effective acceptance shall not be received pursuant to Section 8.4(a) above with respect to all Restricted Securities offered for sale pursuant to the Section 8.4 Offer Notice or if the Company fails to complete the purchase of the Restricted Securities within the thirty day period specified in Section 8.4(b), then, subject to subparagraph (d) below, the Purchaser may sell the Identified Parties all or any part of the Restricted Securities so offered for sale and not so accepted by the Company at a price not less than the price, and on terms not more favorable to the purchaser thereof than the terms, stated in the Section 8.4 Offer Notice at any time within 90 days after the expiration of the Offer Period required by Section 8.4(a) above. In the event that the Restricted Securities are not sold by the Purchaser during such 90-day period, the right of the Purchaser to sell such stock shall expire and the obligations of this Section 8.4 shall be reinstated; provided, however, that in the event that the Purchaser determines, at any time during such 90-day period, that the sale of all or any part of the remaining Restricted Securities on the terms set forth in the Section 8.4 Offer Notice is impractical, the Purchaser can

terminate the offer and reinstate the procedure provided in this Section 8.4 without waiting for the expiration of such 90-day period.

(d) Before consummating a sale of Restricted Securities to the Identified Parties, the Purchaser shall submit to the Company the written opinion, addressed to the Company, of Purchaser's counsel as to whether, in the opinion of such counsel, such proposed transfer involves a transaction requiring registration of such Restricted Securities under the 1933 Act and applicable state securities laws or an exemption thereunder is available. If in such opinion of counsel (which opinion and counsel shall be reasonably acceptable to the Company), the proposed transfer may be effected without registration under the 1933 Act and any applicable state securities laws or "blue sky" laws, then the Purchaser shall thereupon be entitled to effect such transfer in accordance with the terms of subparagraph (c) above. Each certificate or other instrument evidencing the securities issued upon such transfer (and each certificate or other instrument evidencing any such securities not transferred) shall bear the legend set forth in Section 8.2 hereof unless: (a) in such opinion of such counsel (which opinion and counsel shall be reasonably acceptable to the Company) the registration of future transfers is not required by the applicable provisions of the 1933 Act and state securities laws, or (b) the Company shall have waived the requirement of such legend; provided, however, that such legend shall not be required on any certificate or other instrument evidencing the securities issued upon such transfer in the event such transfer shall be made in compliance with the requirements of Rule 144 (as amended from time to time or any similar or successor rule) promulgated under the 1933 Act. The Purchaser shall not effect any transfer until such opinion of counsel has been given to and accepted (which acceptance shall not be unreasonably delayed) by the Company (unless waived by the Company) or until registration of the Restricted Shares involved in the above-mentioned request has become effective under the 1933 Act.

(e) Anything contained herein to the contrary notwithstanding, the provisions of this Section 8.4 shall not be applicable to a transfer pursuant to Section 8.5 or 8.6 hereof, or a transfer to an Affiliate (as defined in the 1933 Act) of the Purchaser or to a person who is not a Competitor (as defined below) if such Affiliate or person executes all documents necessary or desirable in the reasonable judgment of the Company to become a party to, and be bound by, the terms of this Agreement. As used herein, the term "Competitor" means any entity listed on Schedule 8.4.

SECTION 8.5. Termination of Restrictions on Transferability. The conditions precedent imposed by this Section 8 upon the transferability of the Preferred Stock and the Conversion Shares, if any, shall cease and terminate as to any of the Preferred Stock or the Conversion Shares, when such securities shall have been registered under the Securities Exchange Act of 1934.

SECTION 8.6. Required Registration. The Purchaser shall be entitled to request that the Company effect the registration under the 1933 Act of Restricted Shares under the terms and conditions of that certain registration rights agreement attached hereto as Exhibit G.

SECTION 9. SURVIVAL OF REPRESENTATIONS, WARRANTIES AND AGREEMENTS

SECTION 9.1. Survival. All covenants, agreements, representations and warranties made herein and in the certificates delivered pursuant hereto shall survive the execution and delivery of this Agreement and the issuance and sale of the Shares hereunder; provided, however, representations and warranties made herein or therein shall only be deemed to have been made as of the date hereof and as of the Closing Date (except as specifically provided in Sections 4.2 and 5).

SECTION 10. MISCELLANEOUS

SECTION 10.1. Owner of Shares. The Company may deem and treat the person in whose name the Shares or the Conversion Shares, if any, are registered as the absolute owner thereof for all purposes whatsoever, and the Company shall not be affected by any notice to the contrary.

SECTION 10.2. Successors. This Agreement shall be binding upon and except as provided herein, shall inure to the benefit of the respective successors, executors, personal representatives, heirs and assigns of each of the parties hereto.

SECTION 10.3. Finder's Fees. Each party to this Agreement represents and warrants that, to the best of its knowledge, no broker or finder has acted for such party in connection with this Agreement or the transactions contemplated by this Agreement and that no broker or finder is entitled to any broker's or finder's fee or other commission in respect thereof based in any way on agreements, arrangements or understandings made by such party. The Company shall indemnify the Purchaser against, and hold it harmless from, any liability, cost, or expense (including reasonable attorneys' fees and expenses) resulting from any such agreement, arrangement, or understanding made by the Company, and the Purchaser shall indemnify the Company against, and hold the Company harmless from, any liability, cost, or expense (including reasonable attorneys fees and expenses) resulting from any such agreement, arrangement, or understanding made by the Purchaser, with any third party, for brokerage or finders fees or other commissions in connection with this Agreement.

SECTION 10.4. Governing Law. This Agreement shall be governed by and construed under the laws of the State of California applicable to contracts made and to be performed in such jurisdiction, without regard to choice of law principles.

SECTION 10.5. Notice. Unless otherwise provided, any notice or other communications required or permitted hereunder shall be given in writing and shall be deemed effectively given when delivered personally, or upon receipt by the party entitled to receive the

notice when sent by registered or certified mail, postage prepaid, addressed to the party to be notified at the address indicated for such party on the signature page hereof or at such other address as such party may designate by ten (10) days advance written notice to the other parties. All notices shall be given to the Company at 670 Almanor Avenue, Sunnyvale, California 94086 to the attention of Lewis S. Gruber, President and Chief Executive Officer, with a copy to Sachnoff & Weaver, Ltd., 30 South Wacker Drive, Suite 2900, Chicago, Illinois 60606 to the attention of Misty S. Gruber.

SECTION 10.6. Entire Agreement. This Agreement together with the Exhibits and Schedules attached hereto or delivered herewith sets forth the entire understanding of the parties with respect to the transactions contemplated hereby.

SECTION 10.7. Headings. The headings of the sections of this Agreement are inserted for convenience of reference only and shall not be considered a part hereof.

SECTION 10.8. Amendment. This Agreement may not be modified, amended or changed without the written consent of each Purchaser.

SECTION 10.9. Payment of Expenses. The Company shall pay the costs and expenses incurred by it in connection with the issuance and sale of the Shares, and the execution, delivery and performance of this Agreement. Each Purchaser shall pay the costs and expenses incurred by it in connection with the purchase of its Shares and the execution, delivery and performance of this Agreement.

SECTION 10.10. Waiver of Covenants and Agreements. Notwithstanding any other provision contained herein, any covenant, agreement or provisions on the part of the Company to be performed herein may be waived by written agreement of the Purchaser waiving compliance.

SECTION 10.11. Counterparts. This Agreement may be executed and delivered in two or more counterparts, each of which shall be an original document and all of which together shall constitute a single binding agreement.

SECTION 10.12. Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, such provision shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

IN WITNESS WHEREOF, each of the parties hereto has fully executed this Agreement as of the date first set forth above.

THE EAST COAST PURCHASER	HYSEQ, INC.
By /s/ PETER BARRETT	By /s/ LEWIS S. GRUBER
Name: Peter Barrett	Name: Lewis S. Gruber
Title:	Title: President and Chief Executive Officer
Address:	Address: 670 Almanor Avenue Sunnyvale, California 94086

THE WEST COAST PURCHASER	ATTEST:
By: /s/ LEWIS T. WILLIAMS	By: /s/ JAMES N. FLETCHER
Name: Lewis T. Williams, M.D., Ph.D.	James N. Fletcher, Secretary
Title: Senior Vice President	
Address: 4560 Horton Street Emeryville, CA 94608	

Schedule 1.1(b)

Shares to Be Purchased

The East Coast Purchaser

Subject to the terms and conditions herein set forth, the Company agrees to sell, issue and deliver to the East Coast Purchaser and the East Coast Purchaser agrees to buy (i) at the First Closing, 175,070 shares of the Preferred Stock for a price equal to $28.56 per share and an aggregate purchase price of $5,000,000 and (ii) at the Second Closing, either (A) such number of shares of Preferred Stock having an aggregate value of $5,000,000 based on the lesser of (x) $28.56 per share and (y) the Conversion Price of the Preferred Stock then in effect or (B) in the event the Company consummates an initial public offering of its Common Stock on or prior to December 2, 1997, such number of shares of Common Stock having an aggregate value of $5,000,000 (valued at a price per share equal to the price to public in such public offering less one-half of the underwriting discounts and commissions applicable to the shares sold to the public which are not applicable to the shares of Common Stock sold to Purchaser), which shares of Common Stock shall be registered pursuant to the 1933 Act.

The West Coast Purchaser

Subject to the terms and conditions herein set forth, the Company agrees to sell, issue and deliver to the West Coast Purchaser and the West Coast Purchaser agrees to buy, (i) at the First Closing, 175,070 shares of the Preferred Stock for a price equal to $28.56 per share and an aggregate purchase price of $5,000,000 and (ii) at the Second Closing, in the event the Company consummates an initial public offering of its Common Stock on or prior to December 2, 1997, such number of shares of Common Stock having an aggregate value of $2,500,000 (valued at a price per share equal to the price to public in such public offering less one-half of the underwriting discounts and commissions applicable to the shares sold to the public which are not applicable to the shares of Common Stock sold to Purchaser), which shares of Common Stock shall be registered pursuant to the 1933 Act.

Schedule 1.2

Closings

East Coast Purchaser

First Closing. The First Closing shall take place on such date as is determined by mutual agreement of the parties; provided, however, that such date shall be no later June 20, 1997.

Second Closing. The Second Closing shall take place on December 2, 1997 or, if the Company sells Common Stock as set forth on Schedule 1.1(b), on the date of the closing of the initial public offering, or at such other date as is determined by mutual agreement of the parties.

West Coast Purchaser

First Closing. The First Closing shall be held on such date as is determined by mutual agreement of the parties; *provided, however*, that such date shall be no later June 2, 1997.

Second Closing. The Second Closing shall be held, if at all, on the date of the closing of the Company's initial public offering occurring on or before December 2, 1997 or such later date as is determined by mutual agreement of the parties. If the Company does not consummate a public offering on or prior to December 2, 1997, there will be no Second Closing.

Exhibit: 2

REGISTRATION RIGHTS AGREEMENT

HYSEQ, INC.

This Registration Rights Agreement (the "Agreement") is made and entered into as of the 19th day of June, 1997, by and between Hyseq, Inc., a Nevada corporation (the "Company"), and The Perkin-Elmer Corporation (the "Holder").

W I T N E S S E T H:

WHEREAS, the Holder has agreed to purchase shares of shares of the Company's Series B Preferred Stock, par value $.001 per share (the "Preferred Stock" or "Shares"), pursuant to the Stock Purchase Agreement dated as of May 28, 1997 (the "Purchase Agreement"); and

WHEREAS, as additional consideration for the purchase of the Shares by each Holder, the Company desires to grant to each such Holder registration rights with respect to the Shares;

NOW THEREFORE, in consideration of the foregoing and other good and valuable consideration, the parties hereto agree as follows:

1. Definitions. For purposes of this Agreement:

(a) The terms "register," "registered" and "registration" refer to a registration effected by preparing and filing a registration statement or similar document in compliance with the Securities Act of 1933, as amended (the "1933 Act"), and the declaration or ordering of effectiveness of such registration statement or document;

(b) The term "Registrable Securities" means (i) the common stock issuable or issued upon conversion of the Preferred Stock (the "Common Stock") and (ii) any common stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the Preferred Stock or Common Stock, excluding in all cases, however, any Registrable Securities sold by a person in a transaction in which such person's registration rights are not assigned; provided, however, that as to any particular securities that are included in Registrable Securities, such securities shall cease to be Registrable Securities when (i) such shares shall have been sold to the public pursuant to a registered public offering or (ii) such securities shall have been sold pursuant to Rule 144 (or any successor provision) under the 1933 Act.

(c) The number of shares of "Registrable Securities then outstanding" shall be determined by the number of shares of Common Stock outstanding which are, and the number of shares of Common Stock issuable pursuant to then exercisable or convertible securities which are exercisable or convertible into, Registrable Securities; and

(d) The term "Holder" includes any person owning or having the right to acquire Registrable Securities or any assignee thereof in accordance with Paragraph 12 hereof.

2. Required Registration. At any time after the date which is six (6) months after the closing of an initial public offering of the Company's common stock, the Holders of a majority of the total number of Registrable Securities then outstanding may request (a "Demand") that the Company prepare and file a registration statement under the 1933 Act covering any or all of the Registrable Securities. In the event that the Company receives a Demand under this Paragraph 2, the Company shall, within five (5) business days of the receipt of the Demand, give written notice of such request to all Holders of Registrable Securities and shall file a registration statement not more than the later of (i) thirty (30) business days after receipt of a Demand or (ii) ten (10) business days after requisite financial statements are available for inclusion in the registration statement, and use its best efforts to effect as soon as practicable thereafter, the registration under the 1933 Act in accordance with Paragraph 4 hereof of all Registrable Securities which the Holders request be registered within twenty (20) business days after the mailing of such notice by the Company in accordance with subparagraph 16(c). The Company shall be obligated to register Registrable Securities pursuant to this Paragraph 2 on one occasion only, provided, however, that such obligation shall be deemed satisfied

only when a registration statement covering all Registrable Securities specified in such Demand, as well as by any Holders joining in such Demand, shall have become effective for the sale of such Registrable Securities in accordance with the method of disposition specified by the requesting Holders, and, if such method of disposition is a firm commitment underwritten public offering, all such shares have been sold pursuant thereto.

Notwithstanding anything to the contrary contained herein, the Company may not, on its own behalf or on behalf of any other stockholder(s), file a registration statement under the 1933 Act for a public offering of its common stock within 90 days after the effective date of a registration statement filed under this Paragraph 2.

3. Incidental Registration. If (but without any obligation to do so, and other than pursuant to Paragraph 2) the Company, at any time, proposes to register (including for this purpose a registration effected by the Company for stockholders other than the Holders) any of its stock or other securities under the 1933 Act in connection with the public offering of such securities solely for cash (other than a registration relating solely to the sale of securities to participants in an initial public offering, a Company stock plan or a registration on Form S-4 or any other form which does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities), the Company shall, each such time, give each Holder written notice of such registration in accordance with subparagraph 16(c) hereof. Upon the written request of each Holder given

within twenty (20) business days after mailing of such notice by the Company, the Company shall use its best efforts, subject to the provisions of Paragraph 8, to cause to be registered under the Securities Act all of the Registrable Securities that each Holder has requested to be registered; provided that the Company shall have the right to postpone or withdraw any registration effected pursuant to this Paragraph 3 without obligation to any Holder.

4. Obligations of the Company. Whenever required under this Agreement to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible (unless otherwise specified in this Agreement):

(a) Prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective until this agreement is terminated pursuant to Paragraph 15 hereof.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the 1933 Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders covered by such registration statement such numbers of copies of the registration statement (including each preliminary prospectus) and the prospectus contained therein in conformity with the requirements of the 1933 Act, and such other documents all as they may reasonably request in order to facilitate the disposition of such Registrable Securities.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders thereof, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the 1933 Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. Upon such notification, such Holders shall immediately cease making offers of Registered Securities. The Company shall promptly provide such Holders with revised prospectuses and, following receipt of the revised prospectuses, such Holders shall be free to resume making offers of the Registered Securities.

(g) If the offering is underwritten and at the request of any Holder of Registrable Securities, use its best efforts to furnish on the date that Registrable Securities are delivered to the underwriters for sale pursuant to such registration: (i) an opinion, dated such date, of counsel representing the Company for the purposes of such registration, addressed to the underwriters and to such Holder, stating that such registration statement has become effective under the 1933 Act and that (A) to the best knowledge of such counsel, no stop order suspending the effectiveness thereof has been issued and no proceedings for that purpose have been instituted or are pending or contemplated under the 1933 Act, (B) the registration statement, the related prospectus and each amendment or supplement thereof comply as to form in all material respects with the requirements of the 1933 Act (except that such counsel need not express any opinion as to financial statements contained therein) and (C) to such other effects as reasonably may be requested by counsel for the underwriters or by such Holder or its counsel and (ii) a letter dated such date from the independent public accountants retained by the Company, addressed to the underwriters and to such Holder, stating that they are independent public accountants within the meaning of the 1933 Act and that, in the opinion of such accountants, the financial statements of the Company included in the registration statement or the prospectus, or any amendment or

supplement thereof, comply as to form in all material respects with the applicable accounting requirements of the 1933 Act, and such letter shall additionally cover such other financial matters (including information as to the period ending no more than five business days prior to the date of such letter) with respect to such registration as such underwriters reasonably may request.

(h) Use its best efforts to list the Registrable Securities covered by such registration statement with any securities exchange or interdealer quotation system on which the Common Stock is then listed or included for quotation.

5. Provision of Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Agreement that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them, and the intended method of disposition of such securities as shall be reasonably required to effect the registration of the Registrable Securities.

6. Expenses of Required Registration. With respect to the demand registration right under Paragraph 2, expenses, other than underwriting discounts and commissions and any nonaccountable expense allowance (attributable to the Holders of Registrable Securities on a pro rata basis with securities to be registered by the Company and any other selling stockholders) of any underwriters, incurred in connection with registration and fees and expenses of counsel to the selling Holders, if any, including (without limitation) all registration, filing and qualification fees, printers' and accounting fees, fees and disbursements of counsel for the Company, shall be borne by the Company; provided that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Paragraph 2 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all participating Holders shall bear such expenses); provided, however, that if, at the time of such withdrawal, such Holders have learned of a material adverse change in the condition, business or prospects of the Company taken as a whole from that known to such Holders at the time of their request, then the Holders shall not be required to pay any of such expenses and shall retain their rights pursuant to Paragraph 2.

7. Expenses of Incidental Registration. The Company shall bear and pay all expenses incurred in connection with any registration, filing or qualification of Registrable Securities with respect to the registrations pursuant to Paragraph 2 for the Holder, including (without limitation) all registration, filing and qualification fees, printers' and accounting fees relating or apportionable thereto and the reasonable fees and disbursements of one counsel for the Holder selected by it, but excluding underwriting discounts and commissions and any nonaccountable expense allowance (attributable to the Holders of Registrable Securities on a pro rata basis with securities to be registered by the Company and any other selling stockholders) of underwriters relating to Registrable Securities.

8. Underwriting Requirements. In connection with any offering involving an underwriting of shares being issued by the Company, the Company shall not be required under Paragraph 3 to include any of the Holders' securities in such underwriting unless they accept the terms of the underwriting as agreed upon between the Company and the underwriters and then only in such quantity as will not, in the opinion of the underwriters, jeopardize the success of the offering by the Company. If the total amount of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the amount of securities sold other than by the Company that the underwriters reasonably believe compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters believe will not jeopardize the success of the offering (the securities so included to be apportioned such that all Registrable Securities held by the Holders shall be included in such registration, and if this is not possible, then pro rata among the Holders of Registrable Securities and the holders of any class or series of securities with liquidation rights pari passu with Registrable Securities but in any case subsequent to the holders of Series A Preferred Stock to the extent required under their respective registration rights agreements and prior to the holders of any other class of securities other than Registrable Securities or any class or series of securities with liquidation rights pari passu with Registrable Securities). For purposes of the preceding parenthetical concerning apportionment, for any selling stockholder that is a Holder of Registrable Securties and that is a partnership or corporation, the partners, retired partners and stockholders of such Holder, or the estates and family members of

any such partners and retired partners and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "selling stockholder," and any pro rata reduction with respect to such "selling stockholder" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "selling stockholder," as defined in this sentence.

9. Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Agreement.

10. Indemnification. In the event any Registrable Securities are included in a registration statement under this Agreement:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder of such Registrable Securities, the officers and directors of each such Holder, any underwriter (as defined in the 1933 Act) for such Holder and each person, if any, who controls such Holder or underwriter within the meaning of the 1933 Act or the Securities and Exchange Act of 1934, as amended ("the 1934 Act"), against any losses, claims, damages or liabilities joint or several) to which they may become subject under the 1933 Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based

upon any of the following statements, omissions or violations (collectively, a "Violation"): (i) any untrue statement or alleged untrue statement of material fact contained in such registration statement, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the 1933 Act, the 1934 Act, any state securities law or any rule or regulation promulgated under the 1933 Act, the 1934 Act or any state securities law; and the Company will reimburse each Holder, officer or director, underwriter or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the indemnity agreement contained in this subparagraph 10(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company (which consent shall not be unreasonably withheld), nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by any such Holder.

(b) To the extent permitted by law, each selling Holder, severally and not jointly will indemnify and hold harmless the Company, each of its directors, each of its officers who have signed the registration statement, each person, if any, who controls the Company within the meaning of the 1933 Act, any underwriter and any other Holder selling securities in such registration statement or any of its directors or officers or any person who controls such Holder, against any losses, claims, damages or liabilities joint or several) to which the Company or any such director, officer or controlling person may become subject, under the 1933 Act, the 1934 Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any Violation, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished by such Holder expressly for use in connection with such registration; and each such Holder will reimburse any legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or controlling person, other Holder, officer, director, or controlling person in connection with investigating or defending any such loss, claim, damage, liability, or action; provided, however, that the indemnity agreement contained in this subparagraph 10(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; provided, that, in no event shall any indemnity under this subparagraph 10(b) exceed the gross proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Paragraph 10 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Paragraph 10, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that any indemnified party shall have the right to retain its own counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such actions, if prejudicial to its ability to defend such action, shall relieve such indemnifying party of any liability to the indemnified party under this Paragraph 10, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Paragraph 10.

(d) To provide for just and equitable contribution, if (i) an indemnified party makes a claim for indemnification pursuant to subparagraph 10(a) or 10(b) but it is found in a final judicial determination, not subject to further appeal, that such indemnification may not be enforced in such case, even though this Agreement expressly provides for indemnification in such case, or (ii) any indemnified or indemnifying party seeks contribution under the 1933 Act, the 1934 Act, or otherwise, then the Company (including for this purpose any contribution made by or

on behalf of any officer, director, employee, agent or counsel of the Company, or any controlling person of the Company), on the one hand, and the Holders (including for this purpose any contribution by or on behalf of an indemnified party), on the other hand, shall contribute to the losses, liabilities, claims, damages, and expenses to which any of them may be subject, in such proportions as are appropriate to reflect the relative benefits received by the Company, on the one hand, and the Holders, on the other hand; provided, however, that if applicable law does not permit such allocation, then other relevant equitable considerations such as the relative fault of the Company and the Holders in connection with the facts which resulted in such losses, liabilities, claims, damages and expenses shall also be considered. The relative benefits received by the Company, on the one hand, and the Holders, on the other hand, shall be deemed to be in the same proportion as the total proceeds from the offering received by each of the Company on the one hand and the Holders, on the other hand.

The relative fault, in the case of an untrue statement, alleged untrue statement, omission, or alleged omission, shall be determined by, among other things, whether such statement, alleged statement, omission, or alleged omission relates to information supplied by the Company or by the Holders, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement, alleged statement, omission, or alleged omission. The Company and Holders agree that it would be unjust and inequitable if the respective obligations of the Company and the Holders for contribution were determined by pro rata or per capital allocation of the aggregate losses, liabilities, claims, damages and expenses or by any other method of allocation that does not reflect the equitable considerations referred to in this subparagraph 10(d). No person guilty of a fraudulent misrepresentation (within the meaning of subparagraph 11(f) of the 1933 Act) shall be entitled to contribution from any person who is not guilty of such fraudulent misrepresentation. For purposes of this subparagraph 10(d), each person, if any, who controls a Holder within the meaning of Section 15 of the 1933 Act or Section 20(a) of the 1934 Act and each officer, director, stockholder, employee, agent and counsel of the Holders shall have the same rights of contribution as the Holder, and each person, if any, who controls the Company within the meaning of Section 15 of the 1933 Act or Section 20(a) of the 1934 Act and each officer, director, employee, agent and counsel of the Company, shall have the same rights to contribution as the Company, subject in each case to the provisions of this subparagraph 10(d). Anything in this subparagraph 10(d) to the contrary notwithstanding, no party shall be liable for contribution with respect to the settlement of any claim or action effected without its written consent. This subparagraph 10(d) is intended to supersede any right to contribution under the 1933 Act, the 1934 Act, or otherwise.

(e) The obligations of the Company and Holders under this Paragraph 10 shall survive the completion of any offering of Registrable Securities in a registration statement under this Agreement, and otherwise.

11. Efforts Under the 1934 Act. With a view to making available to the Holders the benefits of Rule 144 under the 1933 Act and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration, the Company agrees to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144, at all times after 90 days after the effective date of the first registration statement filed by the Company for the offering of its securities to the general public;

(b) file with the SEC in a timely manner all reports and other documents required of the Company under the 1933 Act and the 1934 Act; and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144 (at any time after 90 days after the effective date of the first registration statement filed by the Company), the 1933 Act and the 1934 Act (at any time after it has become subject to such reporting requirements), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC which permits the selling of any such securities without registration.

12. Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Agreement may be assigned by a Holder to a transferee or assignee of such securities; provided, in each case, the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned; and, such transferee or assignee shall, as a condition to such transfer, deliver to the Company a written instrument by which such transferee or assignee agrees to be bound by the obligations imposed on Holders of Registrable Securities pursuant to this Agreement and provided, further, that such assignment shall be effective only if immediately following such transfer, the disposition of such securities by the transferee or assignee: (i) is restricted under the 1933 Act; or (ii) is exempt from registration under the 1933 Act.

13. Market Stand-Off Agreement. Each Holder owning more than 2% of the outstanding stock of the Company hereby agrees that it shall not, to the extent requested by the Company and an underwriter of Common Stock (or other securities) of the Company, sell or otherwise transfer or dispose (other than to donees who agree to be similarly bound) of any Registrable Securities during a reasonable and customary period of time, as agreed to by the Company and the underwriters, not to exceed 180 days, following the effective date of a registration statement of the Company filed under the 1933 Act; provided, however, that:

(a) such agreement shall be applicable only to a registration statement of the Company which covers shares (or securities) to be sold to the public by an underwriter on its behalf in an initial public offering; and

(b) all officers and directors of the Company and all other persons with registration rights (whether or not pursuant to this Agreement) enter into similar agreements.

In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the Registrable Securities of each Holder thereof until the end of such reasonable and customary period.

14. Amendment of Registration Rights. Any provision of this Agreement may be amended and the observance thereof may be waived (either generally or in a particular instance and either retroactively or prospectively), only with the written consent of the Company and the Holders of a majority of the Registrable Securities then outstanding; provided, however, that any amendment or waiver effected in accordance with this paragraph shall be binding upon each holder of any securities purchased under this Agreement at the time outstanding (including securities into which such securities are convertible), each future holder of all such securities, and the Company.

15. Termination of Registration Rights. The Company's obligations pursuant to this Agreement (other than pursuant to Paragraphs 3 and 10) shall terminate as to any Holder of Registrable Securities on the earlier of (i) when the Holder can remove the restrictive legend on such Holder's shares pursuant to Rule 144(k) under the 1933 Act (or any such successor rule) or (ii) on the fifth anniversary of the closing of the initial registered public offering of Common Stock of the Company. The Company's obligations pursuant to Paragraph 3 hereof shall terminate as to any Holder of Registrable Securities on the fifth anniversary of the closing of the initial registered public offering of Common Stock of the Company.

16. Miscellaneous.

(a) Remedies. In the event of a breach by the Company of its obligations under this Agreement, each Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Agreement.

(b) Agreements and Waivers. The provisions of this Agreement, including the provisions of this sentence, may not be amended, modified or supplemented, unless such amendment, modification or supplement is in writing and signed by the Company and the Holders of at least two thirds of the outstanding Registrable Securities.

(c) Notices. All notices and other communications provided for or

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permitted hereunder shall be made in writing by hand-delivery, registered first-class mail, telex, or telecopies, initially to the address set forth below, and thereafter at such other address, notice of which is given in accordance with the provisions of this subparagraph 16(c):

(i) if to the Company:

Lewis S. Gruber, President and CEO
Hyseq, Inc.
Almanor Avenue
Sunnyvale, California 94086

copy to:

Sachnoff & Weaver, Ltd.
30 South Wacker Drive
Suite 2900
Chicago, Illinois 60606
Attention: Misty S. Gruber, Esq.

(ii) if to the Holders:

At the address set forth in the Company's Stock Register.

All such notices and communications shall be deemed to have been duly given: when delivered by hand, if personally delivered; two business days after being deposited in the mail, postage prepaid, if mailed; when answered back, if telexed; and when receipt is acknowledged, if telecopied.

(d) Successors and Assigns. Subject to Paragraph 12, this Agreement shall inure to the benefit of and be binding upon the successors and assigns of each of the parties, including without limitation and without the need for an express assignment, subsequent holders of the Registrable Shares subject to the terms hereof.

(e) Counterparts. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

(f) Headings. The headings in this Agreement are for convenience of references only and shall not limit or otherwise affect the meaning hereof.

(g) Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of California without reference to its conflicts of law provisions.

(h) Severability. In the event that any one or more of the provisions contained herein, or the application hereof in any circumstance is held invalid, illegal or unenforceable, the validity, legality and enforceability of any such provisions contained herein shall not be affected or impaired thereby.

(i) Entire Agreement. This Agreement is intended by the parties as a final expression of their agreement and intended to be a complete and exclusive statement of this agreement and understanding of the parties hereto in respect of the subject matter contained herein. There are not restrictions, promises warranties or undertakings, other than those set forth or referred to herein, concerning the registration rights granted by the Company pursuant to this Agreement.

(j) Subsequent Registration Rights. The Company shall not grant to any third party any registration rights more favorable than, or inconsistent with, any of those contained herein so long as any of the registration rights under this Agreement remains in effect.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed as of the date first written above.

HYSEQ, INC.

By: /s/ Lewis S. Gruber

Lewis S. Gruber, President and CEO

HOLDER:

THE PERKIN-ELMER CORPORATION

By: /s/ Peter Barrett

Name: Peter Barrett

Title: Vice President

HYSEQ, INC.
LOCK-UP AGREEMENT

June 11, 1997

Lehman Brothers, Inc.
Morgan Stanley & Co. Incorporated
Fahnestock & Co. Inc.

c/o Wilson Sonsini Goodrich & Rosati
650 Page Mill Road
Palo Alto, CA 94304-1050
Attention: Amy E. Rees

Ladies and Gentlemen:

The undersigned understands that you, as representatives (the "Representatives") of the several underwriters (the "Underwriters"), propose to enter into an Underwriting Agreement with Hyseq, Inc. (the "Company") providing for the public offering (the "Public Offering") by the several Underwriters, including yourselves, of common stock of the Company (the "Common Stock").

In consideration of the Underwriters' agreement to purchase and make the Public Offering of the Company's Common Stock, and for other good and valuable consideration receipt of which is hereby acknowledged, the undersigned hereby agrees, during the period ending one hundred eighty (180) days after the date of the final Prospectus for the Public Offering (the "Lock-up Period"), not to (1) offer, pledge, sell, contract to sell, engage in any short sale, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for Common Stock or (2) enter into any swap or similar agreement that transfers, in whole or in part, the economic risk of ownership of the Common Stock, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of Common Stock or such other securities, in cash or otherwise, otherwise than (i) as a bona fide gift or gifts, (ii) by will or intestacy to the undersigned's immediate family or to a trust the beneficiaries of which are exclusively the undersigned and/or a member or members of his or her immediate family, (iii) as a distribution to limited partners or shareholders of the undersigned, (iv) as a purchase of shares by the undersigned on the open market or the sale of such shares, or (v) with the prior written consent of Lehman Brothers, Inc. In addition, the undersigned agrees that, without the prior written consent of Lehman Brothers, Inc. on behalf of the Underwriters, it will not, during the Lock-up Period, make any demand for or exercise any right with respect to, the registration of any shares of Common Stock or any security convertible into or exercisable or exchangeable for Common Stock.

The undersigned confirms that the agreements of the undersigned are irrevocable and shall be binding upon the undersigned's legal representatives, successors and assigns. The undersigned agrees and consents to the entry of stop transfer instructions with the Company's transfer agent against the transfer of securities of the Company held by the undersigned except in compliance with the terms and conditions of this Agreement.

This Agreement shall terminate and be of no further effect if the Registration Statement for the Public Offering is not declared effective by the Securities and Exchange Commission by October 31, 1997.

Very truly yours,

/s/ Peter Barrett

(Signature)

Peter Barrett

(Print Name if an Entity)

Vice President

(Print Title if an Entity)