

AS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION ON OCTOBER 4, 1996

REGISTRATION NO. 333-11105

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

AMENDMENT NO. 2

TO

FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARQULE, INC.
(EXACT NAME OF REGISTRANT AS SPECIFIED IN ITS CHARTER)

DELAWARE (STATE OR OTHER JURISDICTION OF INCORPORATION OR ORGANIZATION)	2834 (PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE NUMBER)	04-3221586 (I.R.S. EMPLOYER IDENTIFICATION NUMBER)
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200 BOSTON AVENUE
MEDFORD, MASSACHUSETTS 02155
(617) 395-4100
(ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE, OF
REGISTRANT'S PRINCIPAL EXECUTIVE OFFICES)

ERIC B. GORDON
PRESIDENT AND CHIEF EXECUTIVE OFFICER
ARQULE, INC.
200 BOSTON AVENUE
MEDFORD, MASSACHUSETTS 02155
(617) 395-4100
(NAME, ADDRESS, INCLUDING ZIP CODE, AND TELEPHONE NUMBER, INCLUDING AREA CODE,
OF AGENT FOR SERVICE)

COPIES TO:

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LAWRENCE S. WITTENBERG, ESQ.
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HIGH STREET TOWER
125 HIGH STREET
BOSTON, MASSACHUSETTS 02110
(617) 248-7000

APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC:
As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on
a delayed or continuous basis pursuant to Rule 415 under the Securities Act of
1933, check the following box. / /

THE REGISTRANT HEREBY AMENDS THIS REGISTRATION STATEMENT ON SUCH DATE OR

DATES AS MAY BE NECESSARY TO DELAY ITS EFFECTIVE DATE UNTIL THE REGISTRANT SHALL FILE A FURTHER AMENDMENT WHICH SPECIFICALLY STATES THAT THIS REGISTRATION STATEMENT SHALL THEREAFTER BECOME EFFECTIVE IN ACCORDANCE WITH SECTION 8(a) OF THE SECURITIES ACT OF 1933 OR UNTIL THE REGISTRATION STATEMENT SHALL BECOME EFFECTIVE ON SUCH DATE AS THE COMMISSION, ACTING PURSUANT TO SECTION 8(a), MAY DETERMINE.

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[SET VERTICALLY ON LEFT SIDE OF PAGE:

Information contained herein is subject to completion or amendment. A registration statement relating to these securities has been filed with the Securities and Exchange Commission. These securities may not be sold nor may offers to buy be accepted prior to the time the registration statement becomes effective. This Prospectus shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of these securities in any State in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such State.]

SUBJECT TO COMPLETION, DATED OCTOBER 4, 1996

PROSPECTUS

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2,000,000 SHARES

ARQULE, INC.

[ARQULE LOGO]

COMMON STOCK

All of the 2,000,000 shares of Common Stock offered hereby are being sold by ArQule, Inc. Prior to this offering, there has been no public market for the Common Stock of the Company. It is currently anticipated that the initial public offering price will be between \$11.00 and \$13.00 per share. See "Underwriting" for a discussion of the factors to be considered in determining the initial public offering price. The Common Stock has been approved for quotation on the Nasdaq National Market under the symbol ARQL.

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THE SHARES OFFERED HEREBY INVOLVE A HIGH DEGREE OF RISK.
SEE "RISK FACTORS" BEGINNING ON PAGE 5.

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THESE SECURITIES HAVE NOT BEEN APPROVED OR DISAPPROVED BY THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION NOR HAS THE SECURITIES AND EXCHANGE COMMISSION OR ANY STATE SECURITIES COMMISSION PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

<Caption >

	PRICE TO PUBLIC	UNDERWRITING DISCOUNT (1)	PROCEEDS TO COMPANY (2)
Per Share.....	\$	\$	\$
Total (3).....	\$	\$	\$

<FN>

(1) See "Underwriting" for indemnification arrangements with the several Underwriters.

(2) Before deducting expenses payable by the Company estimated at \$775,000.

(3) The Company has granted to the Underwriters a 30-day option to purchase up to 300,000 additional shares of Common Stock solely to cover over-allotments, if any. If all such shares are purchased, the total Price to Public, Underwriting Discount and Proceeds to Company will be \$, \$ and \$, respectively. See "Underwriting."

The shares of Common Stock are offered by the several Underwriters subject to prior sale, receipt and acceptance by them and subject to the right of the Underwriters to reject any order in whole or in part and certain other conditions. It is expected that certificates for such shares will be available for delivery on or about , 1996, at the offices of the agent of Hambrecht & Quist LLC in New York, New York.

HAMBRECHT & QUIST

OPPENHEIMER & CO., INC.

VECTOR SECURITIES INTERNATIONAL, INC.

October , 1996

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[GRAPH]

The above graphical representation displays the integration of ArQule's Combinatorial Drug Design and Development Platform.

IN CONNECTION WITH THIS OFFERING, THE UNDERWRITERS MAY OVER-ALLOT OR EFFECT TRANSACTIONS WHICH STABILIZE OR MAINTAIN THE MARKET PRICE OF THE COMMON STOCK OF THE COMPANY AT A LEVEL ABOVE THAT WHICH MIGHT OTHERWISE PREVAIL IN THE OPEN MARKET. SUCH TRANSACTIONS MAY BE EFFECTED ON THE NASDAQ NATIONAL MARKET OR OTHERWISE. SUCH STABILIZING, IF COMMENCED, MAY BE DISCONTINUED AT ANY TIME.

AMAP[Trademark], Directed Array[Trademark] and Mapping Array[Trademark] are trademarks of the Company for which there are pending applications for registration in the U.S. Patent and Trademark Office.

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PROSPECTUS SUMMARY

The following summary is qualified in its entirety by the more detailed information and financial statements, including notes thereto, appearing elsewhere in this Prospectus.

ArQule, Inc. (the "Company" or "ArQule") has created a new technology platform for the discovery and production of novel chemical compounds with commercial potential. The Company's initial focus is on providing these novel compounds to the pharmaceutical and biotechnology industries. The Company has developed a proprietary technology for the identification and optimization of drug development candidates. This technology uses a modular building block approach to the development of compounds, together with structure-guided drug design, high speed parallel chemical synthesis and information technology, to rapidly develop large, diverse collections of compounds that have the potential to be biologically active. To date, the Company has entered into collaborative arrangements with Roche Bioscience, Pharmacia Biotech AB, Abbott Laboratories and Solvay Duphar B.V., and has formed joint discovery programs with several biotechnology companies. ArQule believes that its technology will allow its collaborative partners to accelerate the drug discovery process by several years, permitting them to realize significant cost reductions and the earlier recovery of research and development expenditures for successful drugs.

Using its proprietary "automated molecular assembly plant" (AMAP(TM))

system and structure-activity relationship ("SAR") data regarding biological targets and molecular components, ArQule produces significant quantities of pure small organic compounds in logically structured spatially addressable arrays. Unlike most current approaches to compound development, ArQule's compound arrays are created by using structure-guided and rational drug design tools to systematically assemble molecular components with properties the Company's scientists believe are likely to exhibit biological activity. ArQule's compound arrays are designed around certain core structures or themes. Each compound in the array is different from the adjacent compounds as a result of a single structural modification. Each ArQule array omits compounds that are closely analogous to other compounds in the array, using representative diversity to create a logical representation of a virtual library of hundreds of times as many compounds as are in the array. Drug developers are able to realize significant savings by screening the thousands of compounds in each ArQule array rather than the millions of compounds they represent.

ArQule manufactures and delivers two types of arrays of synthesized compounds to its pharmaceutical and biotechnology partners: (i) Mapping Array(TM) compound sets, which are arrays of novel, diverse small molecule compounds used for screening and (ii) Directed Array(TM) compound sets, which are arrays of compounds that are closely related, often referred to as "analogs" of a particular lead compound. Both Mapping Array and Directed Array sets are shipped in industry-standard 96-well microtiter plates that are compatible with most drug developers' screening protocols. Under its Mapping Array program, ArQule ships a minimum of 100,000 compounds per year in 15 to 20 separate Mapping Array sets, each consisting of 3,000 to 10,000 individual compounds based on a different theme or core structure chosen by ArQule.

ArQule conducts drug discovery programs primarily with partners in the pharmaceutical and biotechnology industries. To date, ArQule has entered into collaborative arrangements with Roche Bioscience, Pharmacia Biotech AB, Abbott Laboratories and Solvay Duphar B.V., and has formed joint discovery programs with several biotechnology companies. In exchange for non-exclusive access to ArQule's Mapping Array program, the Company's pharmaceutical partners pay ArQule a combination of up-front and annual subscription fees. In addition, these companies agree to pay a fixed amount for Directed Array sets, as well as to make payments upon the achievement of certain milestones and to pay royalties upon the commercialization of drugs developed from ArQule compounds. In exchange for providing the arrays to the Company's biotechnology partners, the Company receives joint ownership of any potential drugs identified by the biotechnology partner.

ArQule's integrated technologies also present the Company with opportunities in a number of biological and non-biological fields outside of drug discovery. These opportunities include the production of separations media for the purification of therapeutic proteins, novel agricultural chemicals, industrial catalysts and the development of nano-scale polymeric structures for specialized mechanical applications.

THE OFFERING

Common Stock offered by the Company.....	2,000,000 shares
Common Stock to be outstanding after the offering.....	8,976,487 shares(1)
Use of proceeds.....	To fund research and product development programs and for general corporate and working capital purposes.
Proposed Nasdaq National Market symbol.....	ARQL

	PERIOD FROM INCEPTION (MAY 6, 1993) THROUGH DECEMBER 31,		YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
	1993	1994	1995	1995	1996	
						(UNAUDITED)
STATEMENT OF OPERATIONS DATA:						
Revenue.....	\$ --	\$ 85	\$ 3,330	\$ 1,521	\$ 2,975	
Loss from operations.....	(1,456)	(4,067)	(1,966)	(890)	(907)	
Net loss.....	\$(1,465)	\$(4,206)	\$(2,252)	\$(1,069)	\$(754)	
Unaudited pro forma net loss per share(2).....			\$ (0.33)		\$(0.10)	
Shares used in computing unaudited pro forma net loss per share(2).....			6,853		7,443	

JUNE 30, 1996		
ACTUAL	PRO FORMA (3)	AS ADJUSTED (3) (4)
(UNAUDITED)		

BALANCE SHEET DATA:

Cash, cash equivalents and marketable securities.....	\$ 6,367	\$ 6,367	\$ 27,912
Working capital.....	1,394	1,394	22,939
Total assets.....	11,848	11,848	33,393
Capital lease obligations, less current portion.....	1,426	1,426	1,426
Series B mandatorily redeemable convertible preferred stock.....	6,898	--	--
Total stockholders' equity (deficit).....	(1,622)	5,276	26,821

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- (1) Excludes 1,135,920 shares issuable upon the exercise of options outstanding as of June 30, 1996 with a weighted average exercise price of \$2.21 per share.
- (2) Unaudited pro forma net loss per share is determined by dividing Net loss by Shares used in computing unaudited pro forma net loss per share. For information regarding Shares used in computing unaudited pro forma net loss per share, see Notes 2 and 10 of Notes to Financial Statements.
- (3) Reflects the conversion of all outstanding shares of preferred stock into 6,219,948 shares of Common Stock upon the closing of this offering and the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants immediately prior to the effectiveness of the registration statement of which this Prospectus is a part. See Notes 8 and 10 of Notes to Financial Statements.
- (4) As adjusted to give effect to the sale of 2,000,000 shares of Common Stock offered hereby, after deducting the underwriting discount and offering expenses, at an assumed initial public offering price of \$12.00 per share and the application of the estimated net proceeds therefrom as set forth in "Use of Proceeds."

Except as otherwise noted, all information in this Prospectus assumes (i) a one-for-two reverse stock split of the Common Stock to be effected prior to the effectiveness of the registration statement of which this Prospectus is a part, (ii) the conversion of all outstanding shares of Series A Convertible Preferred Stock and Series B Convertible Preferred Stock into an aggregate of 6,219,948 shares of Common Stock immediately prior to the closing of this offering (after giving effect to the reverse stock split), (iii) the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants immediately prior to the effectiveness of the registration statement of which this Prospectus is a part and (iv) no exercise of the Underwriters' over-allotment option. The shares of Common Stock offered hereby involve a high degree of risk. Investors should carefully consider the information set forth under "Risk Factors."

RISK FACTORS

An investment in the shares of Common Stock being offered hereby involves a high degree of risk. Prospective investors should carefully consider the following risk factors, in addition to the other information contained in this Prospectus, before purchasing the shares of Common Stock offered hereby.

Limited Operating History; History of Operating Losses; Uncertainty of Future Profitability. The Company has had a limited operating history. For the year ended December 31, 1994, the year ended December 31, 1995 and the six months ended June 30, 1996, the Company had net losses of approximately \$4.2 million, \$2.3 million and \$0.8 million, respectively. As of June 30, 1996, the Company had an accumulated deficit of approximately \$8.7 million. The Company's expansion of its operations and enhancements to its technology will result in significant expenses over the next several years that may not be offset by significant revenues. The Company expects that revenues for the foreseeable future and the Company's ability to achieve profitability will be dependent upon the ability of the Company to enter into additional collaborative arrangements with customers. To date, all revenue received by the Company has been from up-front fees and research and development funding paid pursuant to collaborative agreements with the Company's collaborative partners. The Company has not realized any revenues from the achievement of milestones or royalties from the discovery, development or sale of a commercial product by one of the Company's collaborative partners, and there can be no assurance that any such revenues will be realized. The Company is unable to predict when, or if, it will become profitable. See "Selected Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Unproven Business Strategy. The Company's modular building block approach to chemistry has not yet resulted in the commercialization of a product. The Company uses chemical building blocks for the purpose of rapidly identifying, optimizing and obtaining proprietary rights to as many compounds with commercial potential as possible. The pricing and nature of the Company's compound sets are such that there may only be a limited number of companies that are potential customers for such sets. The Company's ability to succeed is dependent upon the acceptance by potential customers of the Company's approach to chemistry and compound analysis as an effective tool in the discovery and development of compounds with commercial potential. Due to the highly proprietary nature of the activities being conducted, the central importance of these activities to their drug discovery and development efforts, and the desire to obtain maximum patent and other proprietary protection on the results of their internal programs, pharmaceutical and biotechnology companies have historically conducted lead compound identification and optimization within their own research departments. There can be no assurance that the Company's present or future collaborators will not pursue existing or alternative technology, either independently or in collaboration with others, in preference to that of the Company or that the Company will be able to attract future collaborators on acceptable terms or develop a sustainable, profitable business. See "Business."

Competition and the Risk of Obsolescence of Technology. Competition among the many organizations actively attempting to identify and optimize compounds for development in the pharmaceutical industry and in other areas is intense. In the pharmaceutical industry, ArQule competes with the research departments of pharmaceutical companies, biotechnology companies, combinatorial chemistry companies and research and academic institutions. Many of these competitors have greater financial and human resources, and more experience in research and development, than the Company. Historically, pharmaceutical companies have maintained close control over their research activities, including the synthesis, screening and optimization of chemical compounds. Many of these pharmaceutical companies, which represent the greatest potential market for ArQule's products and services, have developed or are developing internal combinatorial chemistry and other methodologies to improve productivity, including major investments in robotics technology to permit the automated parallel synthesis of compounds. In addition, ArQule competes with biotechnology and combinatorial chemistry companies that offer a range of products and services. Academic institutions, governmental agencies and other research organizations are also conducting research in areas in which the Company

is working, either on their own or in collaboration with others. The Company anticipates that it will face increased competition in the future as new companies enter the market and advanced technologies, including more sophisticated information technologies, become available. The Company's technological approaches may be rendered obsolete or uneconomical by advances in existing technological approaches or the development of different approaches by one or more of the Company's competitors. See "Business--Competition."

Dependence on Third Parties. The Company's strategy for the development and commercialization of its products and services involves the formation of collaborative arrangements with third parties, initially pharmaceutical and biotechnology companies. To date, the Company has entered into numerous such arrangements. There can be no assurance that the Company's existing collaborations will not be terminated under certain circumstances by its collaborators and any such terminations could have a material adverse effect on the Company. There can be no assurance that the Company will be able to establish additional collaborative arrangements, that any such arrangements will be on terms favorable to the Company, or that current or future collaborative arrangements will ultimately be successful. Further, ArQule's receipt of revenues from collaborative arrangements is affected by the timing of efforts expended by third parties. The Company's products and services will only result in commercialized pharmaceutical products generating milestone payments and royalties after significant preclinical and clinical development efforts, the receipt of the requisite regulatory approvals, and the integration of manufacturing capabilities and successful marketing efforts. With the exception of certain aspects of preclinical development, the Company does not currently intend to perform any of these activities. Therefore, the Company will be dependent upon the expertise of, and dedication of sufficient resources by, third parties to develop and commercialize products. Should a collaborative partner fail to develop or commercialize a compound or product to which it has obtained rights from the Company, the Company may not receive any future milestone payments or royalties associated with such compound or product. Furthermore, there can be no assurance that any such development or commercialization would be successful or that disputes will not arise over the application of payment provisions to such drugs. There can be no assurance that current or future collaborative partners will not pursue alternative technologies or develop alternative products, either on their own or in collaboration with others, including the Company's competitors, as a means for developing treatments for the diseases targeted by collaborative arrangements with the Company. See "Business--ArQule's Drug Discovery Programs."

Dependence on Key Employees. The Company is highly dependent on the principal members of its scientific and management staff, in particular, Dr. Joseph C. Hogan, Jr. and Dr. David L. Coffen. The loss of one or more members of its staff could have a material adverse effect on the Company's business, financial condition and results of operations. The Company does not maintain key person life insurance on the life of any employee. The Company's future success also will depend in part on its ability to identify, hire and retain additional qualified personnel, including individuals with doctorates in basic sciences. There is intense competition for such personnel in the areas of the Company's activities, and there can be no assurance that the Company will be able to continue to attract and retain personnel with the advanced technical qualifications necessary for the development of the Company's business. Failure to attract and retain key personnel could have a material adverse effect on the Company's business, financial condition and results of operations. See "Business--Employees" and "Management."

Future Capital Needs; Uncertainty of Additional Funding. There can be no assurance that the net proceeds from this offering, together with the Company's existing capital resources and revenue from operations, will be adequate to fund the Company's operations through December 1998. The Company may be required to raise additional capital over a period of several years in order to conduct its operations. Such capital may be raised through additional public or private equity financings, as well as collaborative arrangements, borrowings and other available sources. The Company's capital requirements depend on numerous factors, including entering into additional collaborative arrangements, competing technological and market developments, changes in the Company's existing collaborative

relationships, the cost of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights, the purchase of additional capital equipment, the progress of the Company's drug discovery programs and the progress of the Company's collaborators' milestone and royalty-producing activities. The Company does not currently plan to independently develop, manufacture or market any drugs it discovers. Should the Company, however, choose to develop any such drugs, the Company will require substantial funds to conduct research and development, preclinical studies and clinical trials and to market any pharmaceutical products that may be developed from such drugs. There can be no assurance that additional funding, if necessary, will be available on favorable terms, if at all. If adequate funds are not available, the Company may be required to curtail operations significantly or to obtain funds by entering into arrangements with collaborative partners or others that may require the Company to relinquish rights to certain of its technologies, product candidates, products or potential markets. To the extent that additional capital is raised through the sale of equity or securities convertible into equity, the issuance of such securities could result in dilution to the Company's existing stockholders. See "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Dependence on Scale Up and Management of Growth. The Company's success will depend on the expansion of its operations and the management of these expanded operations. To be cost-effective in its delivery of services and products, the Company must enhance productivity through further automation of its processes and improvements to its technology. The Company also must successfully structure and manage multiple additional collaborative relationships. There can be no assurance that the Company will be successful in its engineering efforts to further automate its processes or that the Company will be successful in managing and meeting the staffing requirements of additional collaborative relationships. Failure to achieve any of these goals could have a material adverse effect on the Company's business, financial condition or results of operations. See "Business--ArQule's Drug Discovery Programs" and "--Employees."

Control By Management and Existing Stockholders. Upon completion of this offering, the Company's significant stockholders, executive officers, directors and affiliated entities together will beneficially own approximately 71.9% of the outstanding shares of Common Stock (69.6% if the Underwriters' over-allotment option is exercised in full). As a result, these stockholders, acting together, will be able to control most matters requiring approval by the stockholders of the Company, including the election of directors. Such a concentration of ownership may have the effect of delaying or preventing a change in control of the Company, including transactions in which stockholders might otherwise receive a premium for their shares over then current market prices. See "Principal Stockholders."

Dependence on Patents and Proprietary Rights. ArQule has one issued patent and has filed a number of patent applications. There can be no assurance that patent applications filed by ArQule will result in patents being issued, that the claims of such patents will offer significant protection of the Company's technology, or that any patents issued to or licensed by ArQule will not be challenged, narrowed, invalidated or circumvented. The Company's success will depend in large part on its ability, and the ability of its licensees and its licensors, to obtain patents for its technologies and the compounds and other products, if any, resulting from the application of such technologies, to defend such patents once obtained and to maintain trade secrets, both in the United States and in foreign countries. The commercial success of the Company will also depend upon avoiding the infringement of patents issued to others and maintaining the technology licenses upon which certain of the Company's current products are, or any future products under development might be, based.

Some of the Company's competitors have, or are affiliated with companies having, substantially greater resources than the Company, and such competitors may be able to sustain the costs of complex patent litigation to a greater degree and for longer periods of time than the Company. Uncertainties resulting from the initiation and continuation of any patent or related litigation could have a material adverse effect on the Company's ability to compete in the marketplace pending resolution of the disputed matters. To date, one patent has been issued to the Company. There can be no assurance that

other patents will issue to the Company or its licensors as a result of their pending applications or that, if issued, such patents will contain claims sufficiently broad to afford protection against competitors with similar technology. Moreover, there can be no assurance that the Company or its customers will be able to obtain significant patent protection for lead compounds or pharmaceutical products based upon the Company's technology. There can be no assurance that any patents issued to the Company or its collaborative partners, or for which the Company has license rights, will not be challenged, narrowed, invalidated or circumvented, or that the rights granted thereunder will provide competitive advantages to the Company. Litigation, which could result in substantial cost to the Company, may be necessary to enforce the Company's patent and license rights, to enforce or defend an infringement claim, or to determine the scope and validity of others' proprietary rights. If competitors of the Company prepare and file patent applications in the United States or abroad that claim technology also claimed by the Company, the Company may have to participate in interference proceedings declared by the U.S. Patent and Trademark Office to determine the priority of invention, or opposition proceedings in a foreign patent office, both of which could result in substantial cost to the Company, even if the outcome is favorable to the Company. An adverse outcome could subject the Company to significant liabilities to third parties, and require the Company to cease using the technology or to license disputed rights from third parties, which licenses may not be available at reasonable cost.

A number of pharmaceutical and biotechnology companies, and research and academic institutions have developed technologies, filed patent applications or received patents on various technologies that may be related to the Company's business. Some of these technologies, applications or patents may conflict with the Company's technologies or patent applications. Such conflicts could also limit the scope of the claim of any patents that the Company may be able to obtain, or result in the rejection of the Company's patent applications. The Company currently has certain licenses to patents and patent applications from third parties, and in the future may require additional licenses from other parties. There can be no assurance that: (i) such licenses will be obtainable on commercially reasonable terms, if at all; (ii) the patents underlying such licenses will be valid and enforceable; (iii) patents having commercially valuable claims will issue from any licensed patent applications; or (iv) the proprietary nature of any other technology underlying such licenses will remain proprietary.

The Company relies substantially on certain technologies that are not patentable or proprietary and are therefore available to the Company's competitors. The Company also relies on certain proprietary trade secrets and know-how that are not patentable. Although the Company has taken steps to protect its unpatented trade secrets and know-how, in part through the use of confidentiality agreements with its employees, consultants and certain of its collaborators, there can be no assurance that (i) the agreements will not be breached; (ii) the Company would have adequate remedies for any breach; or (iii) the Company's trade secrets will not otherwise become known or be independently developed or discovered by competitors. See "Business--Patents and Proprietary Rights."

No Prior Public Market for Common Stock; Possible Volatility of Stock Price. Prior to this offering, there has been no public market for the Common Stock and there can be no assurance that an active public market for the Common Stock will develop or be sustained after the offering. The initial public offering price will be determined by negotiations between the Company and the Underwriters and is not necessarily indicative of the market price at which the Common Stock of the Company will trade after this offering. The market prices for securities of comparable companies have been highly volatile and the market has experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies. Announcements of technological innovations or new commercial products by the Company or its competitors, developments concerning proprietary rights, including patents and litigation matters, publicity regarding actual or potential results with respect to products or compounds under development by the Company or its collaborative partners, regulatory developments in both the United States and foreign countries, public concern as to the efficacy of new technologies, general market conditions, as well as quarterly fluctuations in the Company's revenues and financial results and other factors, may have a significant impact on the market price of the

Common Stock. In particular, the realization of any of the risks described in these "Risk Factors" could have a dramatic and adverse impact on such market price. See "Underwriting."

Anti-Takeover Effect of Certain Charter and By-Law Provisions and Delaware Law. The Company's Certificate of Incorporation as it is proposed to be amended and restated concurrently with the closing of this offering (the "Restated Certificate") authorizes the Board of Directors to issue, without stockholder approval, up to 1,000,000 shares of preferred stock ("Preferred Stock") with voting, conversion and other rights and preferences that could adversely affect the voting power or other rights of the holders of Common Stock. The issuance of Preferred Stock or of rights to purchase Preferred Stock could be used to discourage an unsolicited acquisition proposal. In addition, the possible issuance of Preferred Stock could discourage a proxy contest, make more difficult the acquisition of a substantial block of the Company's Common Stock or limit the price that investors might be willing to pay for shares of the Company's Common Stock. The Restated Certificate provides for staggered terms for the members of the Board of Directors. A staggered Board of Directors and certain provisions of the Company's By-laws (the "By-laws") and of Delaware law applicable to the Company could delay or make more difficult a merger, tender offer or proxy contest involving the Company. The Company, for example, will be subject to Section 203 of the General Corporate Law of Delaware which, subject to certain exceptions, restricts certain transactions and business combinations between a corporation and a stockholder owning 15% or more of the corporation's outstanding voting stock (an "interested stockholder") for a period of three years from the date the stockholder becomes an interested stockholder. These provisions may have the effect of delaying or preventing a change of control of the Company without action by the stockholders and, therefore, could adversely affect the price of the Company's Common Stock. See "Management," "Description of Capital Stock--Preferred Stock" and "--Anti-Takeover Measures."

Potential Liability Regarding Hazardous Materials. The research and development processes of the Company involve the controlled use of hazardous materials. The Company is subject to federal, state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. The risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any such liability could exceed the resources of the Company. In addition, there can be no assurance that the Company will not be required to incur significant costs to comply with environmental laws and regulations in the future.

Government Regulation. Although the manufacture, transportation and storage of the Company's products are subject to certain laws and regulations, the sale of the Company's products is not subject to significant government regulations. However, the Company's future profitability is dependent on the sales of pharmaceuticals and other products developed from the Company's compounds by its customers and collaborators. Regulation by governmental entities in the United States and other countries will be a significant factor in the production and marketing of any pharmaceutical products that may be developed by a customer or collaborative partner of the Company. The nature and the extent to which such regulation may apply to the Company's customers or its collaborative partners will vary depending on the nature of any such pharmaceutical products. Virtually all pharmaceutical products developed by the Company's customers or its collaborative partners will require regulatory approval by governmental agencies prior to commercialization. In particular, human pharmaceutical products are subject to rigorous preclinical and clinical testing and other approval procedures by the U.S. Food and Drug Administration (the "FDA") and by foreign regulatory authorities. Various federal and, in some cases, state statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of such pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate federal and foreign statutes and regulations are time consuming and require the expenditure of substantial resources. Generally, in order to gain FDA approval, a company first must conduct preclinical studies in the laboratory and in animal models to gain preliminary information on a compound's efficacy and to identify any safety problems. The results of these studies are submitted as a part of an Investigational New Drug

application ("IND") that the FDA must review before human clinical trials of an investigational drug can start. In order to commercialize any products, the Company or its customers or its collaborative partners will be required to sponsor and file an IND and will be responsible for initiating and overseeing the clinical studies to demonstrate the safety and efficacy that are necessary to obtain FDA approval of any such products. Clinical trials are normally done in three phases and generally take two to five years, but may take longer, to complete. After completion of clinical trials of a new product, FDA and foreign regulatory authority marketing approval must be obtained. If the product is classified as a new drug, a New Drug Application ("NDA") must be filed and approved before commercial marketing of the drug. The testing and approval processes require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. NDAs submitted to the FDA can take several years to obtain approval. Even if FDA regulatory clearances are obtained, a marketed product is subject to continual review, and later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. For marketing outside the United States, the Company will also be subject to foreign regulatory requirements governing human clinical trials and marketing approval for pharmaceutical products. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country. See "Business--Government Regulation."

Shares Eligible for Future Sale and Potential Adverse Effect on Market Price. Future sales of Common Stock in the public market following this offering could adversely affect the market price of the Common Stock. Upon completion of this offering, the Company will have 8,976,487 shares of Common Stock outstanding, assuming no exercise of currently outstanding options. Of these shares, the 2,000,000 shares sold in this offering (plus any additional shares sold upon exercise of the Underwriters' over-allotment option) will be freely transferable without restriction under the Securities Act of 1933, as amended (the "Securities Act"), unless they are held by "affiliates" of the Company as that term is used under the Securities Act and the regulations promulgated thereunder. Of the 6,976,487 remaining shares, approximately 151,972 shares of Common Stock will be eligible for sale under Rules 144 and 701 on the ninety-first day after the effectiveness of this offering. Stockholders of the Company, holding in the aggregate 6,824,515 shares of Common Stock, have agreed, subject to certain limited exceptions, not to sell or otherwise dispose of any of the shares held by them as of the date of this Prospectus for a period of 180 days after the date of this Prospectus (the "lock-up period") without the prior written consent of the representatives of the Underwriters of this offering. At the end of such lock-up period, an additional 5,916,781 shares of Common Stock (plus approximately 223,726 shares issuable upon exercise of vested options) will be eligible for immediate resale, subject to compliance with Rule 144 and Rule 701. The remainder of the approximately 907,734 shares of Common Stock held by existing stockholders will become eligible for sale at various times over a period of less than two years and could be sold earlier if the holders exercise any available registration rights. The holders of 6,219,948 shares of Common Stock have the right in certain circumstances to require the Company to register their shares under the Securities Act for resale to the public beginning at the end of the lock-up period. If such holders, by exercising their demand registration rights, cause a large number of shares to be registered and sold in the public market, such sales could have an adverse effect on the market price for the Company's Common Stock. If the Company were required to include in a Company-initiated registration shares held by such holders pursuant to the exercise of their piggyback registration rights, such sales may have an adverse effect on the Company's ability to raise needed capital. In addition, approximately 180 days after the date of this Prospectus, the Company expects to file a registration statement on Form S-8 registering a total of approximately 2,845,000 shares of Common Stock subject to outstanding stock options or reserved for issuance under the Company's stock option plans. See "Management--Stock Plans," "Shares Eligible for Future Sale" and "Underwriting."

Broad Management Discretion in Use of Proceeds. The Company's management

will have broad discretion to allocate proceeds of this offering to uses that it believes are appropriate. There can be no

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assurance that the proceeds of this offering can or will be invested to yield a positive return. See "Use of Proceeds."

Immediate and Substantial Dilution. Purchasers of the shares of Common Stock offered hereby will experience immediate and substantial dilution estimated at \$9.01 in the net tangible book value of their investment from the initial public offering price. Additional dilution will occur upon exercise of outstanding options. See "Dilution" and "Shares Eligible for Future Sale."

Absence of Dividends. The Company has never paid dividends on its Common Stock and does not anticipate paying any cash dividends in the foreseeable future. The Company currently intends to retain its earnings, if any, for the development of its business.

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THE COMPANY

ArQule was incorporated in Delaware in December 1993 and is the successor to a partnership formed on May 6, 1993. The Company's principal executive offices are located at 200 Boston Avenue, Medford, Massachusetts 02155, and its telephone number is (617) 395-4100. The Company is a subsidiary of ArQule Partners, L.P. (the "Partnership"), which owns 61.57% of the shares of Common Stock of the Company before this offering and will own 47.85% of the shares of Common Stock after this offering.

The partners of the Partnership have agreed to dissolve the Partnership and distribute the shares held by it 180 days after the effective date of this offering. Sevin Rosen Fund IV L.P., Atlas Venture Fund II, L.P. and Atlas Venture Europe B.V., which are direct significant stockholders of the Company (collectively, the "Venture Fund Investors"), Legomer Investors, Inc. ("LII"), Legomer Technologies, Inc. ("LTI"), Dr. Joseph C. Hogan, Jr., Chairman of the Board, Senior Vice President of Research and Development and Chief Scientific Officer of the Company, and certain other individuals are partners of the Partnership and will receive shares of Common Stock of the Company upon such Partnership distribution. The Venture Fund Investors hold all of the outstanding shares of LII. Dr. Hogan holds 50% of the outstanding stock of LTI. See "Principal Stockholders."

USE OF PROCEEDS

The net proceeds to the Company from the sale of the Common Stock offered hereby, after deducting the underwriting discount and offering expenses, are estimated to be \$21.5 million (\$24.9 million if the Underwriters' over-allotment option is exercised in full), assuming an initial public offering price of \$12.00 per share.

The principal purposes of this offering are to increase the Company's equity capital and to create a public market for the Company's Common Stock in order to facilitate future access by the Company to public equity markets as well as to create liquidity for its existing stockholders. The Company intends to use the net proceeds of the offering, together with the Company's existing cash, cash equivalents, short-term investments and cash generated from operations, for research and development, working capital and general corporate purposes. Such general corporate purposes may include acquisitions of other businesses, technologies or products. The Company is not in any negotiations

with respect to any such acquisitions. The amount and timing of the Company's actual expenditures for the purposes described above will depend upon a number of factors, including the Company's ability to enter into additional collaborative or licensing arrangements, as well as the timing and terms of such arrangements. In addition, the Company's research and development expenditures will vary as programs are expanded or abandoned and as a result of variability in funding from its collaborative partners. The Company's management will have broad discretion to allocate the net proceeds of this offering to uses that it believes are appropriate. There can be no assurance that the proceeds of this offering can or will be invested to yield a positive return.

The Company currently believes the net proceeds of the offering, together with the Company's existing cash, cash equivalents, short-term investments, cash generated from operations and research funding from corporate collaborators, will enable the Company to maintain its current and planned operations at least through December 1998. However, there can be no assurance that this will be the case. See "Risk Factors--Future Capital Needs; Uncertainty of Additional Funding" and "Management's Discussion and Analysis of Financial Condition and Results of Operations--Liquidity and Capital Resources."

Pending use as set forth above, the net proceeds of the offering will be invested primarily in interest-bearing, investment-grade securities.

DIVIDEND POLICY

The Company has never paid cash dividends on its Common Stock and does not anticipate paying any cash dividends in the foreseeable future. The Company currently intends to retain future earnings, if any, to fund the development of its business.

CAPITALIZATION

The following table sets forth, as of June 30, 1996, (i) the actual capitalization of the Company, (ii) the pro forma capitalization of the Company after giving effect to (a) the conversion of all issued and outstanding preferred stock into 6,219,948 shares of Common Stock and (b) the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants, and (iii) the pro forma capitalization of the Company as adjusted to reflect (a) the sale of the 2,000,000 shares of Common Stock offered hereby, after deducting the underwriting discount and offering expenses, at an assumed initial public offering price of \$12.00 per share and the application of the estimated net proceeds therefrom as set forth in "Use of Proceeds" and (b) the filing of the Restated Certificate to increase the number of authorized shares of Common Stock and to authorize 1,000,000 shares of undesignated preferred stock. This table should be read in conjunction with the financial statements, related notes and other financial information included herein.

	JUNE 30, 1996		
	ACTUAL	PRO FORMA	AS ADJUSTED
	-----	-----	-----
	(IN THOUSANDS)		
Capital lease obligations, less current portion.....	\$ 1,426	\$ 1,426	\$ 1,426
	-----	-----	-----
Series B mandatorily redeemable convertible preferred stock.....	6,898	--	--
	-----	-----	-----
Stockholders' equity (deficit):			
Preferred stock, \$0.01 par value, 15,000,000 shares authorized actual and pro forma, 1,000,000 shares authorized as adjusted:			
Series A convertible preferred stock, 10,624,429 shares issued and outstanding actual, none issued and outstanding pro forma and as adjusted.....	2,628	--	--
Common stock, \$0.01 par value, 20,000,000 shares			

authorized actual and pro forma, 30,000,000 authorized as adjusted; 523,047 shares issued and outstanding actual, 6,977,987 shares issued and outstanding pro forma, 8,977,987 shares issued and outstanding as adjusted(1).....	5	70	90
Additional paid-in capital.....	4,435	13,896	35,421
Accumulated deficit.....	(8,690)	(8,690)	(8,690)
	-----	-----	-----
Total stockholders' equity (deficit).....	(1,622)	5,276	26,821
	-----	-----	-----
Total capitalization.....	\$ 6,702	\$ 6,702	\$28,247
	=====	=====	=====

<FN>

(1) Excludes 1,135,920 shares issuable upon the exercise of options outstanding as of June 30, 1996 with a weighted average exercise price of \$2.21 per share.

DILUTION

The pro forma net tangible book value of the Company as of June 30, 1996 was \$5,276,000 or approximately \$0.76 per share. Pro forma net tangible book value per share represents the total tangible assets of the Company, less total liabilities, divided by 6,977,987 shares of Common Stock outstanding after giving effect to the conversion of all outstanding shares of convertible preferred stock into 6,219,948 shares of Common Stock upon the completion of this offering and the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants immediately prior to the effectiveness of the registration statement of which this Prospectus is a part. Assuming the receipt by the Company of the net proceeds from the sale of the 2,000,000 shares of Common Stock offered hereby at an assumed initial public offering price of \$12.00 per share, the pro forma net tangible book value of the Company as of June 30, 1996 would have been \$26,821,000, or \$2.99 per share. This represents an immediate increase in the pro forma net tangible book value of \$2.23 per share to existing stockholders of the Company and an immediate dilution of \$9.01 per share to new investors purchasing Common Stock in this offering. The following table illustrates the per share dilution to be incurred by new investors as of June 30, 1996:

Assumed initial public offering price.....		\$12.00
Pro forma net tangible book value per share at June 30, 1996.....	\$0.76	
Increase per share attributable to new investors.....	2.23	

Pro forma net tangible book value per share after the offering.....		2.99

Dilution per share to new investors.....		\$ 9.01
		=====

The following table sets forth, on a pro forma basis as of June 30, 1996 (after giving effect to the conversion of all outstanding preferred stock into 6,219,948 shares of Common Stock upon the completion of this offering and for the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants immediately prior to the effectiveness of the registration statement of which this Prospectus is a part), the differences between the existing stockholders and the new investors with respect to the number of shares of Common Stock acquired from the Company, the total consideration paid and the average price per share (assuming an initial public offering price of \$12.00 per share):

SHARES	TOTAL
PURCHASED	CONSIDERATION

(1) Unaudited pro forma net loss per share is determined by dividing the Net loss by Shares used in computing unaudited pro forma net loss per share. For information regarding Shares used in computing unaudited pro forma net loss per share, see Notes 2 and 10 of Notes to Financial Statements.

(2) Reflects the conversion of all outstanding shares of preferred stock into 6,219,948 shares of Common Stock upon the closing of this offering and the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants immediately prior to the effectiveness of the registration statement of which this Prospectus is a part. See Notes 8 and 10 of Notes to Financial Statements. Also gives effect to the sale of 2,000,000 shares of Common Stock offered by the Company hereby, after deducting the underwriting discount and offering expenses, at an assumed initial public offering price of \$12.00 per share and the application of the estimated net proceeds therefrom as set forth in "Use of Proceeds."

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

OVERVIEW

ArQule is engaged in the discovery and development of novel chemical compounds with commercial potential with an initial focus on the pharmaceutical and biotechnology industries. ArQule manufactures and delivers two types of arrays of synthesized compounds to its pharmaceutical and biotechnology partners: (i) Mapping Array compound sets, which are arrays of novel, diverse small molecule compounds used for screening and (ii) Directed Array compounds sets, which are arrays of analogs of a particular lead compound (identified from a Mapping Array set or otherwise), synthesized for the purpose of optimizing such lead compounds.

The Company currently generates revenue through compound development and through license option fees. Compound development revenue relates to revenue from collaborative agreements, which provide for the development and delivery of Mapping Array and Directed Array sets. License option fee revenue represents payments made to the Company for the option to license certain ArQule compounds. The Company's revenue to date is primarily attributable to three major corporate collaborations: Pharmacia Biotech AB, which was entered into in March 1995; Abbott Laboratories, which was entered into in June 1995; and Solvay Duphar B.V., which was entered into in November 1995. Under these collaborations, the Company has received payments of \$9.3 million through June 30, 1996 (\$1.0 million for license option fees; \$8.3 million for compound development), of which \$6.2 million has been recognized as revenue (\$1.0 million for license option fees; \$5.2 million for compound development). The Company recognizes revenue under its corporate collaborations as related work is performed and arrays are delivered. Payments received from corporate partners prior to the completion of the related work are recorded as deferred revenue. License option fees are recognized as the options are granted because such fees are nonrefundable and the Company has no further obligations to fulfill. Cost of revenue represents the actual costs incurred in connection with the development, production and delivery of compounds. The Company is entitled to receive milestone and royalty payments if products generated under the collaborations are developed. The Company has entered into joint discovery agreements with a number of biotechnology companies to which it has provided Mapping Array and Directed Array sets in exchange for joint ownership of resulting drug candidates. These agreements have not yet yielded any significant revenue for the Company.

The Company has not been profitable since inception and has incurred a cumulative net loss of \$8.7 million through June 30, 1996. Losses have resulted principally from costs incurred in research and development activities related to the Company's efforts to develop its technologies and from the associated administrative costs required to support these efforts. The Company's ability to achieve profitability is dependent on its ability to market its Mapping Array and Directed Array sets to pharmaceutical and biotechnology companies and the joint development and commercialization of products in which it has an economic interest.

RESULTS OF OPERATIONS

SIX MONTHS ENDED JUNE 30, 1996 AND 1995

Revenue. The Company's revenue for the six month period ended June 30, 1996 increased \$1.5 million to \$3.0 million from \$1.5 million for the same period in 1995. This was attributable to a \$2.5 million increase in compound development revenue related to the performance of work and the delivery of Mapping Array and Directed Array sets under the Company's collaborative agreements. The Company began recognizing revenue from the Pharmacia, Abbott and Solvay collaborations in March, June and November 1995, respectively. This increase in compound development revenue was partially offset by a \$1.0 million license option fee related to the Pharmacia collaborative agreement recognized during the six month period ended June 30, 1995. No similar option payment was received during the six month period ended June 30, 1996.

Cost of revenue. The Company's cost of revenue for the six month period ended June 30, 1996 increased \$1.5 million to \$1.9 million from \$0.4 million for the six month period ended June 30, 1995.

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This increase was primarily attributable to the costs of additional scientific personnel and the necessary supplies and overhead expenses related to the performance of the work and the delivery of the Mapping Array and Directed Array sets pursuant to its collaborative agreements. The Company anticipates that cost of revenue, in connection with increasing compound development revenue, will increase over the next several years.

Research and development expenses. The Company's research and development expenses for the six month period ended June 30, 1996 decreased \$0.1 million to \$1.1 million from \$1.2 million for the same period in 1995. This decrease was the result of the Company's increased use of its scientific personnel to produce compounds delivered pursuant to its collaborative agreements. The Company has the ability to direct its scientific personnel to work either on its collaborative agreements or on its internal research and development projects as the needs arise. The Company expects research and development spending to increase over the next several years as the Company further expands its chemistry discovery and development programs.

General and administrative expenses. The Company's general and administrative expenses for the six month period ended June 30, 1996, \$0.8 million, were relatively unchanged from the same period in 1995. These expenses will likely increase in future periods to support the projected growth of the Company.

Net interest income (expense). The Company's net interest income for the six month period ended June 30, 1996 was \$0.2 million, which compared to a net expense of \$0.2 million for the same period in 1995. Higher interest income in 1996 resulted primarily from the Company holding higher cash balances following an equity investment by Solvay. See "Business--ArQule's Drug Discovery Programs."

Net loss. The Company's net loss for the six month period ended June 30, 1996 decreased \$0.3 million to \$0.8 million from \$1.1 million for the same period in 1995. The decrease is primarily attributable to additional revenue generated from corporate collaborations during 1996.

YEARS ENDED DECEMBER 31, 1995 AND 1994

Revenue. The Company's revenue for the year ended December 31, 1995 increased to \$3.3 million from \$0.1 million for the same period in 1994. This increase was attributable to compound development revenue related to the performance of work and the delivery of Mapping Array and Directed Array sets under the Company's collaborative agreements which were entered into during 1995. The Company also recognized a \$1.0 million license option fee related to the Pharmacia collaborative agreement entered into in 1995.

Cost of revenue. The Company's cost of revenue for the year ended December 31, 1995 was \$1.6 million, reflecting costs associated with the development, production and delivery of compounds pursuant to the corporate collaborations entered into in 1995. There was no cost of revenue in 1994 as there were no collaborative agreements during this year and as the Company's efforts were directed towards the research and development of its technology.

Research and development expenses. The Company's research and development expenses for the year ended December 31, 1995 decreased \$0.7 million to \$2.1 million from \$2.8 million for the same period in 1994. This decrease was the result of the Company focusing, in 1995, on producing compounds delivered pursuant to its collaborative agreements.

General and administrative expenses. The Company's general and administrative expenses for the year ended December 31, 1995 increased \$0.3 million to \$1.6 million from \$1.3 million for the same period in 1994. This increase was primarily due to costs associated with increased business development activities and administrative support, which accompanied the Company's expansion during 1995.

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Net interest expense. The Company's net interest expense for the year ended December 31, 1995 was \$0.3 million, which compared to \$0.1 million for the same period in 1994. This increase was primarily attributable to increased use of capital equipment lease financing.

Net loss. The Company's net loss for the year ended December 31, 1995 decreased \$1.9 million to \$2.3 million from \$4.2 million for the same period in 1994. The decrease was primarily attributable to the increase in revenue generated from the three corporate collaborations.

YEAR ENDED DECEMBER 31, 1994 AND EIGHT MONTH PERIOD ENDED DECEMBER 31, 1993

Revenue. The Company's revenue for the year ended December 31, 1994 was \$0.1 million. The Company was founded in May 1993, and it did not generate revenue until 1994.

Research and development expenses. The Company's research and development expenses for the year ended December 31, 1994 increased \$2.0 million to \$2.8 million from \$0.8 million for the eight month period ended December 31, 1993. This increase primarily reflects the expansion and development of the Company's combinatorial chemistry technologies and a full year of operations in 1994.

General and administrative expenses. The Company's general and administrative expenses for the year ended December 31, 1994 increased \$0.6 million to \$1.3 million from \$0.7 million for the eight month period ended December 31, 1993, primarily reflecting a full year of operations in 1994.

Net interest expense. The Company's net interest expense for the year ended December 31, 1994 was \$0.1 million which compared to \$9,000 for the eight month period ended December 31, 1993. This increase was primarily attributable to the Company's use of capital equipment lease financing.

Net loss. The Company's net loss for the year ended December 31, 1994 increased \$2.7 million to \$4.2 million from \$1.5 million for the eight month period ended December 31, 1993. This increase was primarily attributable to the Company's scale-up of research and development activities.

LIQUIDITY AND CAPITAL RESOURCES

At June 30, 1996, the Company held cash and cash equivalents and marketable securities with a value of \$6.4 million. The Company's working capital at June 30, 1996 was \$1.4 million. The Company has funded operations to date with sales of preferred stock and common stock totaling \$13.6 million, payments from corporate collaborators totaling \$9.3 million, and the utilization of capital equipment lease financing totaling \$3.1 million. The Company has maintained a master lease agreement since February 1994. Under the terms of this agreement, the Company has funded certain capital expenditures with lease terms ranging from 40 to 42 months in duration. As of June 30, 1996, the Company had utilized \$2.6 million of the available \$5.0 million financing facility.

Net cash used in financing activities for the six months ended June 30, 1996 was \$0.3 million, primarily reflecting financing of capital equipment. Net cash provided by financing activities for the year ended December 31, 1995 was \$7.2 million, largely due to a \$7.0 million equity investment by Solvay. Net cash provided by financing activities for the year ended December 31, 1994 was \$3.8 million, resulting mainly from capital contributions and proceeds from bridge financing.

Net cash provided by operating activities for the six month period ended June 30, 1996 and for the year ended December 31, 1995 was \$1.3 million and \$0.5 million, respectively. The positive cash flow from operating activities primarily reflects additional payments received from the three corporate collaborators. Net cash used in operating activities for the year ended December 31, 1994 was \$3.6 million, largely due to the Company's scale-up of research and development activities prior to generating significant revenue.

Net cash used in investing activities during the six month period ended June 30, 1996 was \$1.4 million, resulting primarily from additional capital equipment purchases. Net cash used in investing activities for the year ended December 31, 1995 was \$5.1 million as compared to \$0.4 million for the year ended December 31, 1994. This increase primarily reflects purchases of marketable securities.

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Management estimates that the proceeds from this offering, together with the Company's existing cash equivalents, short-term investments, cash generated from operations and research funding from corporate collaborators, will enable the Company to maintain its current and planned operations at least through December 1998. The Company's cash requirements may vary materially from those now planned depending upon the results of its drug discovery and development strategies, the ability of the Company to enter into any corporate collaborations in the future and the terms of such collaborations, the results of research and development, the need for currently unanticipated capital expenditures, competitive and technological advances, and other factors. There can be no assurance that the Company will be able to obtain additional customers for the Company's products and services, or that such products and services will produce revenues adequate to fund the Company's operating expenses. If the Company experiences increased losses, the Company may have to seek additional financing from public or private sale of its securities, including equity securities. There can be no assurance that additional funding will be available when needed or on acceptable terms.

NEW ACCOUNTING PRONOUNCEMENTS

In March 1995, the Financial Accounting Standards Board ("FASB") issued SFAS No. 121, "Accounting for the Impairment of Long-lived Assets and for Long-lived Assets to be Disposed Of ". In October 1995, the FASB issued SFAS No. 123, "Accounting for Stock-Based Compensation." Both SFAS No. 121 and No. 123 are effective for the Company for the year ending December 31, 1996. The Company has adopted these standards as required, and has adopted SFAS No. 123 through disclosure only. The adoption of these statements is not expected to have a material effect on the Company's financial position, results of operations or cash flows.

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BUSINESS

OVERVIEW

ArQule has created a new technology platform for the discovery and production of novel chemical compounds with commercial potential. The Company's initial focus is on providing these novel compounds to the pharmaceutical and biotechnology industries. The Company has developed a proprietary technology for the identification and optimization of drug development candidates. This technology uses a modular building block approach to the development of compounds, together with structure-guided drug design, high speed parallel chemical synthesis and information technology, to rapidly develop large, diverse collections of compounds that have the potential to be biologically active. To date, the Company has entered into collaborative arrangements with Roche Bioscience, Pharmacia Biotech AB, Abbott Laboratories and Solvay Duphar B.V., and has formed joint discovery programs with several biotechnology companies. ArQule believes that its technology will allow its collaborative partners to accelerate the drug discovery process by several years, permitting them to

realize significant cost reductions and the earlier recovery of research and development expenditures for successful drugs.

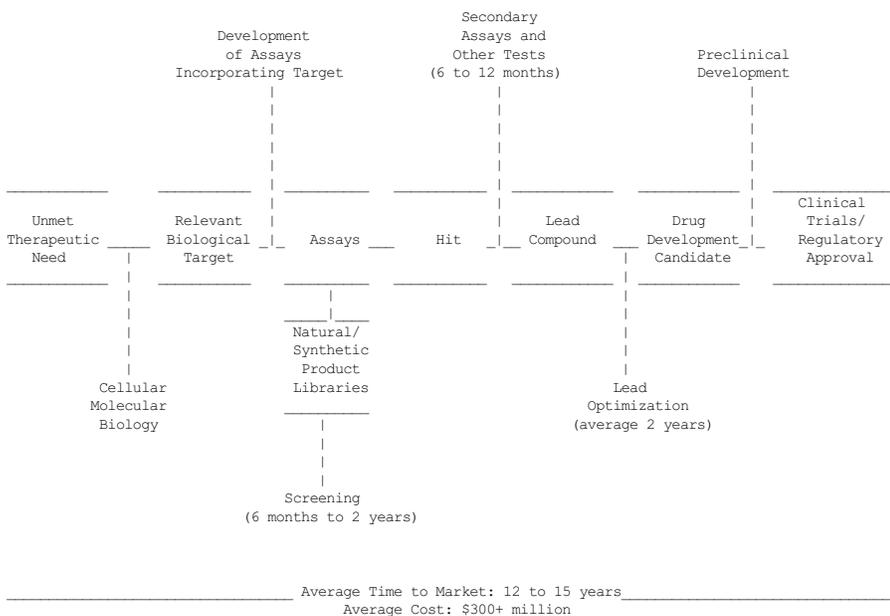
INDUSTRY BACKGROUND

The potential market for ArQule's proprietary modular building block technology is comprised of all consumers of novel chemical compounds, including developers of drugs, separations media, agricultural products, industrial catalysts, specialty materials and other industrial products. The Company's initial business focus has been on the pharmaceutical and biotechnology industries.

Traditional Drug Discovery and Its Limitations. Drugs are chemical compounds that modulate the activity of biological targets associated with particular disease states to achieve a desired therapeutic effect. The discovery and development of drugs has traditionally been a lengthy, expensive and often unsuccessful process. Typically, it takes 12 to 15 years from the original concept of modulating the activity of a particular biological target to the market introduction of a drug that performs such a function. The average cost of bringing a new drug to market has been estimated to be in excess of \$300 million.

The first major step in the drug discovery process is the identification of one or more compounds that interact with a biological target, such as an enzyme, receptor or other protein, that is associated with a disease state. To identify such a compound, collections of compounds are tested or screened for activity with respect to the biological target. A compound that interacts with a target is referred to as a hit, and a hit with characteristics making it suitable as a potential drug is referred to as a lead compound.

TRADITIONAL DRUG DISCOVERY PROCESS



Historically, drug developers have obtained collections of chemical compounds for screening from natural product sources and by synthesis. These collections are often neither sufficiently diverse to be likely to result in a hit nor preselected to include compounds with promising structures or desirable drug characteristics. This random screening approach has yielded a relatively small percentage of hits and only a relatively small portion of those hits have resulted in lead compounds.

The second major step in the drug discovery process is the optimization of a lead compound by the sequential synthesis and testing of variations, or analogs, of a lead compound to identify promising drug development candidates. A drug development candidate is a lead compound that in preclinical studies demonstrates pharmacological efficacy, lack of toxicity, potency, selectivity and other desirable characteristics such as oral availability, cell penetration and stability. Using traditional medicinal chemistry, lead optimization has required an average of two years of synthesizing hundreds of analogs of a lead compound and has been the most expensive and time consuming part of the drug development process prior to clinical testing. The synthesis of a single compound analog takes approximately 7 to 10 days and costs approximately \$7,500. As a result, a chemist is usually able to synthesize only 100 to 200 analogs per year. On average, as many as 6,000 chemical compounds may be synthesized per successful drug at a cost of approximately \$45 million in chemistry costs.

Drug Development in Transition. Lower profit margins, shorter product lives, the proliferation of generic drugs, managed care and cost containment initiatives, combined with scientific and technological advances, have created powerful incentives for drug developers to explore new technologies to discover novel drugs more quickly and cost effectively. The growing biotechnology and gene discovery (genomics) industries are rapidly identifying numerous new biological targets and developing highly sensitive assays incorporating these targets. Advances in robotics have led to automated high throughput screening systems, allowing biologists to assay large numbers of chemical compounds against novel targets. These developments have resulted in increased demand for large and diverse collections of novel compounds.

In addition, in recent years, structure-guided and rational drug design approaches have allowed scientists, using structure activity-relationship ("SAR") data about biological targets, to design compounds that are likely to show activity with respect to a biological target. These developments, together with the developments referred to in the preceding paragraph, have resulted in a proliferation of hits, generating demand for tools to rapidly create analogs of hits and optimize lead compounds.

Current Combinatorial Chemistry Technology and Its Limitations. Combinatorial chemistry is the rapid creation of hundreds of thousands of chemical compounds, most of which do not exist in nature, for the purpose of rapidly identifying hits through random screening. Current combinatorial chemistry has been successful in producing large numbers of compounds and correspondingly large numbers of hits. However, current combinatorial chemistry techniques have been less successful in generating lead compounds and, ultimately, drug development candidates for some or all of the following reasons:

- Time-Consuming Isolation of Hits. In certain combinatorial chemistry applications, large numbers of chemical compounds are synthesized and screened in mixtures. Hits must therefore be isolated from the mixtures, which is a costly, slow, labor-intensive process.
- Lack of Structural and SAR Information. Once a hit is isolated, many current combinatorial techniques fail to facilitate the identification of the structure of the hit or to provide SAR data to guide the lead optimization process.
- Incompatibility with Drug Developers' Screening Protocols. Many combinatorial compounds are produced in a format that is incompatible with standard screening protocols of drug developers. In addition, once a hit is found and the compound is isolated, significant additional work must often be performed by the combinatorial chemistry company to determine the structure of the compound. Drug developers relying on this format may therefore be required to transfer hits to the combinatorial chemistry company.

- Limitations of Solid Phase Chemistry. Several combinatorial chemistry techniques involve the production of compounds using solid phase chemistry in which compounds are attached to small beads. Because many compounds with desirable chemistries cannot be synthesized using solid phase chemistry, collections of compounds based exclusively on solid phase chemistry may have limited diversity.

- Limited Compound Quantities. Certain current combinatorial chemistry techniques produce very small quantities of each compound, which limits further testing once a lead compound is found and precludes archiving of compounds for future testing against additional targets.
- Scale-Up Limitations. Many current combinatorial chemistry techniques involve laboratory methods that cannot be easily translated into large scale manufacturing processes. This creates the possibility that active compounds will be identified that are difficult or impractical to produce in quantities necessary for clinical trials or commercial production.
- Unproductive Screening. Because certain combinatorial chemistry techniques involve the screening of random compounds without preselection for desirable drug characteristics, suitable lead compounds often can be identified only after many unproductive screenings. In addition, testing of mixtures frequently produces equivocal or false positive screening results because the observed activity with a biological target is caused by several compounds within the mixture rather than the interaction of an individual compound with a target, leading to further unproductive screening.

Although recent developments in combinatorial chemistry have shortened the time between identifying a biological target and obtaining a hit in the target assay, the proliferation of hits has not led to a commensurate increase in lead compounds. In addition, current combinatorial chemistry techniques have not significantly improved the lead optimization process and, therefore, have not significantly shortened the time it takes to produce a drug development candidate from a lead compound.

THE ARQULE REVOLUTION

ArQule believes its modular building block technology overcomes many of the limitations of current combinatorial chemistry approaches by accelerating the identification and optimization of lead compounds.

Many organic molecules, including amino acids, peptides, nucleosides, carbohydrates, steroids and alkaloids, may be viewed as comprised of structural components, consisting of a scaffold, or core structure, around which a set of substituent groups and connectors (bonds) is varied. ArQule's scientists have developed proprietary methods for selecting and combining molecular components, or building blocks, to produce arrays of compounds that possess properties they believe will exhibit activity in biological systems.

Using SAR data regarding biologically active compounds and modular molecular components, ArQule's synthetic and computational chemists work together to rapidly design compound arrays that include all combinations of a set of selected building blocks around a common core structure or theme. ArQule's arrays are created by using structure-guided and rational drug design tools to systematically select and assemble molecular building blocks with properties the Company's scientists believe are likely to exhibit biological activity. Each compound in the array is different from the adjacent compound as a result of a single structural modification. Each ArQule array omits compounds that are closely analogous to other compounds in the array, using representative diversity to create a logical representation of a virtual library of hundreds of times as many compounds as are in the array. Drug developers are able to realize significant savings by screening the thousands of compounds in each ArQule array rather than the millions of compounds they represent. In addition, the SAR data of compounds within the array provides a navigational tool for lead optimization by indicating the most promising investigational direction for analoging.

In order to enhance the effectiveness of this modular building block technology, ArQule integrates the following tools:

- structure-guided drug design;
- a proprietary "automated molecular assembly plant" (AMAP) system for high speed parallel synthesis, purification and structural verification of chemical compounds; and
- proprietary computer applications that facilitate the integration of

all of the Company's proprietary technologies.

Graphical representation displaying the integration of ArQule's Combinatorial Drug Design and Development Platform

Structure-Guided Drug Design. ArQule's scientists believe that the likelihood of generating a drug development candidate can be substantially increased if the collection of compounds used for screening is created using three-dimensional structural and SAR data. The Company designs its arrays based on chemical structures that are believed to be biologically active and also on SAR data regarding a particular target and a particular lead compound. Using this data, as well as knowledge of the chemical reactions that are feasible using high speed parallel synthesis, ArQule's scientists design logically arranged arrays of diverse compounds that can easily be synthesized. The Company believes that this approach will accelerate the lead discovery and optimization process by increasing the probability of identifying a lead compound that will result in a drug development candidate.

The AMAP High Speed Parallel Synthesis System. Using its "automated molecular assembly plant" (AMAP) system, ArQule synthesizes, purifies and verifies structural information for individual compounds through automated high speed parallel synthesis. The AMAP system is capable of synthesizing thousands of compounds per day, each in milligram quantities adequate for multiple screens, analyzing such compounds for structural integrity and purity, registering the structural data in a relational database, and delivering the compounds in a 96-well microtiter plate format for high throughput screening.

Integrated Proprietary Computer Applications ("Informatics"). ArQule has developed a proprietary information system which incorporates (i) databases of the molecular structures of building blocks and the compounds in its arrays, (ii) multi-dimensional matrix geometry which provides guidance for the creation of the Company's spatially addressable arrays of compounds containing systematic variations of modular building blocks, (iii) instructions for the robotics involved in the AMAP parallel synthesis production process, (iv) resulting databases of structural information regarding the compounds produced in any particular array which can be supplied in a format compatible with customers' own data registration systems and (v) databases of SAR data regarding particular compounds and their molecular components contained in an array generated when these compounds are screened against biological targets. This integrated information system enables ArQule to gather and apply data on an ongoing basis to enhance the efficiency of the production process and to design compounds based on a growing knowledge of the structure and activity of its molecular components.

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ADVANTAGES OF ARQULE'S COMBINATORIAL DRUG DISCOVERY AND DEVELOPMENT PLATFORM

The Company believes the integration of its technological capabilities offers a unique combinatorial drug discovery and development platform. This platform offers the following significant advantages over current combinatorial chemistry approaches:

- Elimination of Isolation Issues. Unlike combinatorial chemistry processes involving the production of synthesized compounds in mixtures, ArQule's AMAP system produces one compound per well, with each well containing a known compound with a high level of purity.
- Enhanced Structural and SAR Data. ArQule produces arrays using preselected modular building blocks that its scientists believe are likely to produce lead compounds with desirable characteristics, and, in the case of Directed Array sets, based upon the SAR data of the target and/or lead compound. As a result, the Company believes the success rate for drugs developed using its arrays will be improved and the risk of downstream clinical failure will be reduced. The wealth of SAR data available with respect to compounds in its arrays will also facilitate the development of analogs for the further optimization of active compounds.
- Compatibility with Drug Developers' Screening Protocols. ArQule's compounds are delivered to its collaborators in 96-well microtiter plates containing one known compound per well. This delivery format is compatible with most existing screening protocols and permits the owner

of the assay to screen compounds in its own laboratories, thereby having complete control over the screening process.

- Solution and Solid Phase Chemistry. ArQule's compounds may be produced using either solution or solid phase chemistry, permitting the creation of a broad range of novel chemical compounds.
- Significant Compound Quantities. ArQule's compounds are delivered to its collaborators in milligram quantities, permitting the collaborator to engage in extensive testing of a lead compound or to screen compounds against multiple biological targets without having to obtain additional samples from the Company.
- Ease of Scale-Up. ArQule's compounds are produced using fully reproducible and scalable manufacturing processes.
- Reduction in Unproductive Screening. By creating logical arrays of compounds based on known structural and SAR data and eliminating compounds that are closely analogous to others in the array, ArQule believes that fewer compounds will need to be screened prior to identifying compounds with activity. In addition, because ArQule delivers single compounds for screening, such compounds do not generate the false positives and false negatives associated with screening mixtures of compounds.

ArQule believes these significant advantages will allow its collaborative partners to accelerate the drug discovery process by several years by shortening the time required to identify a lead compound and to optimize that compound into a drug development candidate. This acceleration should permit drug developers to realize significant cost reductions and the earlier recovery of research and development expenditures for successful drugs.

ARQULE'S PRODUCTS

ArQule's integrated technologies result in the production of significant quantities of pure small molecule compounds contained in a logically structured spatially-addressable array. ArQule provides its pharmaceutical and biotechnology collaborative partners with two types of arrays of synthesized compounds: (i) Mapping Array compound sets, which are arrays of novel, diverse, small molecule compounds used for screening against biological targets and (ii) Directed Array compound sets, which are arrays of analogs of a particular lead compound synthesized for the purpose of optimizing that lead compound.

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Mapping Array Sets. ArQule's Mapping Array sets are designed around certain core structures or themes selected by ArQule. ArQule provides its collaborative partners with a subscription to an annual Mapping Array program comprised of a minimum of 100,000 compounds in 15 to 20 Mapping Array sets each containing between 3,000 and 10,000 individual compounds. The Mapping Array program is provided to subscribers without limitation as to the targets against which the compounds may be screened. ArQule believes this approach will maximize the number of targets against which its Mapping Array sets are tested, thereby maximizing the potential for identifying activity for each compound in the array. Initially, the Company provides its Mapping Array sets on a non-exclusive, subscription fee basis for screening purposes only. If a compound shows activity in a subscriber's assay, the subscriber may license that compound from the Company for development purposes on an exclusive basis, unless such compound has already been licensed to another collaborative partner. The Company does not provide any structural information regarding the compounds in the Mapping Array sets until a particular compound is licensed.

Directed Array Sets. Upon request, the Company provides Directed Array sets in order to optimize lead compounds. In a Directed Array set, the Company uses its modular building block technology to create analogs of a lead compound identified by the collaborator, either independently or as a result of screening a Mapping Array set. Directed Array sets are logical representations of a virtual library of compounds closely analogous to a lead compound. Successive Directed Array sets are generated in order to identify the compound or compounds within a virtual library having the greatest biological activity and most desirable drug development characteristics. When delivering a Directed Array set, the Company provides the collaborator with structural information for each compound in the array, and each compound is owned by the collaborator either

individually or jointly with ArQule, subject to the payment of fixed fees, milestones and royalties to the Company.

BUSINESS STRATEGY

ArQule's goal is to become the leader in the development of novel chemical compounds with commercial potential, with an initial focus on the pharmaceutical and biotechnology industries. Key elements of the Company's strategy include:

- Collaborations with Pharmaceutical Companies. ArQule has sought collaborations with large pharmaceutical companies who have established manufacturing, marketing and sales resources and a strong commitment to the development of pharmaceutical products. ArQule offers to each of its collaborative partners access to its Mapping Array program for an annual subscription fee and, if requested, customized Directed Array sets for a fixed fee. In addition, the Company is entitled to payments upon the achievement of certain milestones and royalties upon the commercialization of drugs developed by the collaborator from ArQule compounds. The Company plans to pursue additional collaborations aggressively to gain access to additional targets and development expertise, and to generate additional revenue.
- Joint Discovery Programs with Biotechnology Companies. Biotechnology companies represent important potential collaborators for joint discovery and development efforts using ArQule's Mapping Array and Directed Array sets and the biotechnology company's proprietary biological targets and assays. ArQule provides Mapping Array and Directed Array sets to biotechnology companies in exchange for joint ownership of any lead compounds that exhibit activity in the proprietary assays developed by the biotechnology company collaborators. ArQule seeks collaborators with promising drug development programs in a broad range of therapeutic areas.
- Extension of Chemistry Tools to Areas Other than Drug Discovery. The Company intends to extend its integrated technologies to a wide variety of applications outside the field of drug discovery, including bioseparations and protein purification, industrial catalysts and novel agricultural chemicals, as well as to the development of polymeric structures for non-biological applications.

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- Continued Investment in Proprietary Chemistry Technology. ArQule intends to continue its aggressive investment in proprietary chemistry technologies through internal development and licensing of third party technologies. ArQule will also continue to invest in improving the cost-effectiveness of its products through automation and information technologies.

ARQULE'S DRUG DISCOVERY PROGRAMS

Pharmaceutical Company Collaborations. To date, the Company has entered into the following major collaborations with pharmaceutical companies:

Roche Bioscience. In September 1996, the Company entered into a collaborative agreement with Roche Bioscience ("Roche Bioscience"), a division of Syntex (U.S.A.) Inc. and indirect subsidiary of Roche Holding Ltd., pursuant to which the Company will synthesize Directed Array sets from compounds provided to the Company by Roche Bioscience, developed by the Company internally and/or developed by the Company as a part of the collaboration (the "Roche Bioscience Agreement"). Absent early termination, Roche Bioscience will pay the Company approximately \$12.1 million over three years. The parties may jointly agree to increase the number of Directed Array sets to be provided by the Company under the Roche Bioscience Agreement, which may result in increased payments to the Company. Roche Bioscience is also obligated to make additional payments upon the achievement of certain milestones and to pay royalties on sales of drugs that may result from the relationship. The Roche Bioscience Agreement expires in September 1999 and is terminable by Roche Bioscience on or after September 1998 on six months' advance notice. Assuming such termination occurs on September 30, 1998, the Company will have received payments of approximately \$8.4 million from Roche Bioscience and no further payments, other than milestone payments and royalties, will be due to the Company. To date, Roche Bioscience has paid the

Company an aggregate of \$2.0 million under the Roche Bioscience Agreement.

Solvay Duphar B.V. In November 1995, the Company entered into a collaborative agreement with Solvay Duphar B.V. ("Solvay") pursuant to which Solvay has subscribed to the Company's Mapping Array program and has the right to request customized Directed Array sets (the "Solvay Agreement"). To date, the Company has provided Solvay with several Mapping Array and Directed Array sets. Absent early termination, Solvay agreed to pay the Company a minimum of \$17.5 million over five years. Solvay is also obligated to make additional payments upon the achievement of certain milestones and to pay royalties on sales of drugs that may result from the relationship. The Solvay Agreement expires in November 2000. Solvay has the right to terminate the Mapping Array program on twelve months' written notice at any time subject to its payment of a termination fee of approximately \$1.0 million. Solvay may also terminate the delivery of Directed Array sets on six months' written notice at any time subject to its payment of a termination fee equal to a certain percentage of the aggregate research payments made by Solvay in the year in which notice is given. If Solvay gave notice to terminate both programs on the date of this Prospectus, as of the effective termination dates, Solvay would have paid the Company \$3.5 million, not including the termination fees. No further payments would be due from Solvay other than milestone or royalty payments. To date, Solvay has paid the Company an aggregate of \$3.5 million under the Solvay Agreement. In connection with this collaboration, an affiliate of Solvay, Physica B.V., made a \$7.0 million equity investment in the Company. See "Certain Transactions." Under the Solvay Agreement, Solvay has the right to license, on an exclusive basis, lead compounds identified from a Mapping Array set that are active against specified biological targets and that have not previously been committed to another of ArQule's collaborative partners or to an internal program of the Company. Solvay also has the right to use certain of ArQule's technologies internally.

Abbott Laboratories. In June 1995, the Company entered into a collaborative agreement with Abbott Laboratories ("Abbott") pursuant to which Abbott has subscribed to the Company's Mapping Array program and has the right to request customized Directed Array sets (the "Abbott Agreement"). To date, the Company has provided several Mapping Array and Directed Array sets. In August 1996, the Abbott Agreement was amended to provide for the Company to supply Abbott with additional

Mapping Array sets and to eliminate restrictions on the period during which Abbott may screen the Mapping Array sets. The Abbott Agreement, as amended, expires in June 1997, subject to Abbott's right to extend the term of the Abbott Agreement for three additional one year terms. If Abbott exercises its right to extend the Abbott Agreement for its full term, Abbott will pay the Company a minimum of \$11.0 million over a five year period. If Abbott fails to exercise its right to extend the Abbott Agreement beyond the initial term, Abbott would have paid the Company \$4.4 million and no further payments would be due from Abbott other than payments upon the achievement of certain milestones and to pay royalties on the sale of drugs that may result from the relationship. To date, Abbott has paid the Company an aggregate of \$3.8 million under the Abbott Agreement.

Pharmacia Biotech AB. In March 1995, the Company entered into a collaborative agreement with Pharmacia Biotech AB ("Pharmacia"), a wholly-owned subsidiary of Pharmacia & Upjohn, Inc., to allow Pharmacia to evaluate the utility of the Company's technology for the development of products in the fields of bioseparations, synthesis of biomolecules and cell culture (the "Pharmacia Agreement"). On the same date, the Company and Pharmacia also signed an agreement under which Pharmacia has an option to acquire an exclusive, worldwide license to develop and commercialize specified compounds generated by the Company in additional fields covered under the Pharmacia Agreement, subject to the payment by Pharmacia of additional fees and the negotiation and execution by the parties of a license agreement containing commercially reasonable terms (the "Option Agreement"). To date, Pharmacia has paid the Company an aggregate of \$2.0 million under the Pharmacia Agreement and the Option Agreement.

Joint Discovery Programs with Biotechnology Companies. ArQule has initiated joint programs for lead generation and optimization with a number of biotechnology companies. Some of ArQule's biotechnology collaborators and their areas of focus are listed below:

COMPANY	AREA OF FOCUS
Aurora Biosciences, Inc.	Mammalian Cell-Based Assays
Cadus Pharmaceuticals Corporation	Signal Transduction
Cubist Pharmaceuticals, Inc.	Infectious Diseases
ICAgen, Inc.	Ion Channel Receptors
Scriptgen Pharmaceuticals, Inc.	RNA/Protein Interaction
SUGEN, Inc.	Signal Transduction
T Cell Sciences, Inc.	T Cell Activation/Inhibition

In the United States, small biotechnology companies have been highly successful in the discovery of biological targets associated with disease states. Many of these companies, however, lack both (i) large libraries of chemical compounds to screen against identified targets and (ii) the sophisticated chemistry expertise required to optimize compounds once a lead compound has been identified. Under the Company's typical arrangement with a biotechnology company, ArQule provides Mapping Array sets for screening without collecting upfront fees, and the biotechnology company executes a preliminary material transfer agreement. If the collaborator detects an active compound within a Mapping Array set, and that compound has not been previously committed to a third party or to an internal ArQule program, the Company and the collaborator establish a joint discovery program and execute the research collaboration agreement that is attached to the material transfer agreement. If the parties are unable to negotiate the scope of a joint discovery program within a certain period, ArQule has the right to license such compound to any third party.

Although ArQule's formal research collaboration agreement varies from transaction to transaction, it typically establishes a joint drug development program for the lead compound and a particular target, and gives ArQule shared control over the program.

APPLICATIONS OF THE COMPANY'S TECHNOLOGY TO OTHER INDUSTRIES

ArQule's integrated technology platform permits the rapid design and optimization of chemical compounds having specific properties. This presents the Company with opportunities to address a wide variety of non-drug discovery applications, including both biological and non-biological applications. An example of a biological application is the Company's collaboration with Pharmacia to produce highly selective separations media for the commercial scale purification of therapeutic proteins. Another potential biological application for the Company's technologies is the synthesis of novel agricultural chemicals.

Potential non-biological applications include the development of industrial catalysts and nano-scale polymeric structures for specialized mechanical applications. In general, non-biological applications cannot be evaluated using mixtures produced by current combinatorial chemistry techniques because such applications are not characterized by the sensitivity and selectivity exhibited by biological ligand-target interactions. In addition, non-biological targets require substantial quantities of individual compounds to use in rapid iterative experimental cycles. ArQule believes its technologies can satisfy the needs of non-biological applications by producing large quantities of pure compounds of known structures that may be directly translated to large scale manufacturing procedures.

MARKETING AND SALES

The Company markets its products directly to customers through participation in trade conferences and seminars and publications in scientific and trade journals. The Company intends to increase its marketing efforts through the creation of a direct sales force.

RESEARCH AND DEVELOPMENT

ArQule intends to continue its aggressive investment in its proprietary technologies through internal development and licensing of third party technologies in order to increase the diversity and improve other characteristics of compounds offered. The Company will also continue to invest in improving the cost-effectiveness of its products through automation and information technologies. The Company is actively pursuing research projects aimed at identifying and developing new chemistries to improve and expand on its Mapping Array and Directed Array programs. These projects involve research conducted by the Company, collaborations with other researchers and the acquisition of chemistries and other technologies developed by universities and other academic institutions.

PATENTS AND PROPRIETARY RIGHTS

ArQule has one issued patent and has filed a number of patent applications. There can be no assurance that patent applications filed by ArQule will result in patents being issued, that the claims of such patents will offer significant protection of the Company's technology, or that any patents issued to or licensed by ArQule will not be challenged, narrowed, invalidated or circumvented. The Company may also be subject to proceedings that result in the revocation of patent rights previously owned by or licensed to ArQule, as a result of which the Company may be required to obtain licenses from others to continue to develop, test or commercialize its products. There can be no assurance that ArQule will be able to obtain such licenses on acceptable terms, if at all. In addition, there may be pending or issued patents held by parties not affiliated with ArQule that relate to the technology utilized by ArQule. As a result, ArQule may need to acquire licenses, to assert infringement, or contest the validity, of such patents or other similar patents which may be issued. ArQule could incur substantial costs in defending itself against patent infringement claims, interference proceedings, opposition proceedings or other challenges to its patent rights made by third parties, or in bringing such proceedings or enforcing any patent rights of its own.

The Company also relies upon trade secrets, know how and continuing technological advances to develop and maintain its competitive position. In an effort to maintain the confidentiality and ownership of trade secrets and proprietary information, the Company requires employees, consultants and certain collaborators to execute confidentiality and invention assignment agreements upon

commencement of a relationship with the Company. These agreements are intended to enable the Company to protect its proprietary information by controlling the disclosure and use of technology to which it has rights and provide for ownership by the Company of proprietary technology developed at the Company or with the Company's resources. There can be no assurance, however, that these agreements will provide meaningful protection for the Company's trade secrets or other confidential information in the event of unauthorized use or disclosure of such information or that adequate remedies would exist in the event of such unauthorized use or disclosure. The loss or exposure of trade secrets possessed by ArQule could have a material adverse effect on its business.

COMPETITION

Many organizations are actively attempting to identify and optimize compounds for potential pharmaceutical development. The Company's services and products face competition based on a number of factors, including size, diversity and ease of use of libraries of compounds, speed and costs of identifying and optimizing potential lead compounds and patent position. ArQule competes with the research departments of pharmaceutical companies, biotechnology companies, combinatorial chemistry companies and research and academic institutions. Many of these competitors have greater financial and human resources and more experience in research and development than the Company. Smaller companies may also prove to be significant competitors, particularly through collaborative arrangements with large pharmaceutical and established biotechnology companies. In addition to competition for customers, these companies and institutions also compete with the Company in recruiting and retaining highly qualified scientific and management personnel.

Historically, pharmaceutical companies have maintained close control over their research activities, including the synthesis, screening and optimization of chemical compounds. Many of these companies, which represent a significant potential market for ArQule's products and services, are developing in-house combinatorial chemistry and other methodologies to improve productivity, including major investments in robotics technology to permit the automated parallel synthesis of compounds. In addition, these companies may already have large collections of compounds previously synthesized or ordered from chemical supply catalogs or other sources against which they may screen new targets. Other sources of compounds include extracts from natural products such as plants and microorganisms and compounds created using rational drug design. Academic institutions, governmental agencies and other research organizations are also conducting research in areas in which the Company is working either on their own or through collaborative efforts.

The Company anticipates that it will face increased competition in the future as new companies enter the market and advanced technologies become available. The Company's processes may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of the Company's competitors. The existing approaches of the Company's competitors or new approaches or technology developed by the Company's competitors may be more effective than those developed by the Company.

There can be no assurance that the Company's competitors will not develop more effective or more affordable technology or products, or achieve earlier product development and commercialization than the Company, thus rendering the Company's technologies and/or products obsolete, uncompetitive or uneconomical. See "Risk Factors -- Competition and the Risk of Obsolescence of Technology."

GOVERNMENT REGULATION

Although the manufacture, transportation and storage of the Company's products are subject to certain laws and regulations, the sale of the Company's products is not subject to significant government regulations. However, the Company's future profitability is dependent on the sales of pharmaceuticals and other products developed from the Company's compounds by its customers and collaborators. Regulation by governmental entities in the United States and other countries will be a significant factor in the production and marketing of any pharmaceutical products that may be developed by a customer of the Company, or in the event the Company decides to develop a drug

beyond the preclinical phase. The nature and the extent to which such regulation may apply to the Company's customers will vary depending on the nature of any such pharmaceutical products. Virtually all pharmaceutical products developed by the Company's customers will require regulatory approval by governmental agencies prior to commercialization. In particular, human pharmaceutical products are subject to rigorous preclinical and clinical testing and other approval procedures by the FDA and by foreign regulatory authorities. Various federal and, in some cases, state statutes and regulations also govern or influence the manufacturing, safety, labeling, storage, record keeping and marketing of such pharmaceutical products. The process of obtaining these approvals and the subsequent compliance with appropriate federal and foreign statutes and regulations are time consuming and require the expenditure of substantial resources.

Generally, in order to gain FDA approval, a company first must conduct preclinical studies in the laboratory and in animal models to gain preliminary information on a compound's efficacy and to identify any safety problems. The results of these studies are submitted as a part of an IND that the FDA must review before human clinical trials of an investigational drug can start. In order to commercialize any products, the Company or its customer will be required to sponsor and file an IND and will be responsible for initiating and overseeing the clinical studies to demonstrate the safety and efficacy that are necessary to obtain FDA approval of any such products. Clinical trials are normally done in three phases and generally take two to five years, but may take longer, to complete. After completion of clinical trials of a new product, FDA and foreign regulatory authority marketing approval must be obtained. If the product is classified as a new drug, the Company or its customer will be

required to file an NDA and receive approval before commercial marketing of the drug. The testing and approval processes require substantial time and effort and there can be no assurance that any approval will be granted on a timely basis, if at all. NDAs submitted to the FDA can take several years to obtain approval. Even if FDA regulatory clearances are obtained, a marketed product is subject to continual review, and later discovery of previously unknown problems or failure to comply with the applicable regulatory requirements may result in restrictions on the marketing of a product or withdrawal of the product from the market as well as possible civil or criminal sanctions. For marketing outside the United States, the Company will also be subject to foreign regulatory requirements governing human clinical trials and marketing approval for pharmaceutical products. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary widely from country to country.

The research and development processes of the Company involve the controlled use of hazardous materials. The Company is subject to federal state and local laws and regulations governing the use, manufacture, storage, handling and disposal of such materials and certain waste products. Although the Company believes that its activities currently comply with the standards prescribed by such laws and regulations, the risk of accidental contamination or injury from these materials cannot be eliminated. In the event of such an accident, the Company could be held liable for any damages that result and any liability could exceed the resources of the Company. In addition, there can be no assurance that the Company will not be required to incur significant costs to comply with environmental laws and regulations in the future.

EMPLOYEES

As of July 31, 1996, ArQule employed 51 people of whom 23 have Ph.D. degrees. Of these, 31 were engaged in operations, 12 were engaged in research and development and 6 were engaged in marketing and general administration. None of ArQule's employees are covered by collective bargaining agreements. ArQule believes its employee relations are good.

FACILITIES

ArQule's research facilities include approximately 34,800 square feet of laboratory and office space in Medford, Massachusetts pursuant to two lease agreements. These leases extend through July 30, 2000, at which time the Company has an option to renew the leases for an additional five year period.

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ArQule believes its current facilities are adequate for its current operations. The Company believes that suitable additional space will be available to it, when needed, on commercially reasonable terms.

LEGAL PROCEEDINGS

Two individuals have asserted that they are entitled to compensation from certain of the Company's stockholders and/or the Company equal to approximately five percent of the equity interest in the Company for services in connection with the initial financing of the Partnership in 1993. The Company intends to vigorously defend any claim brought by such individuals and believes that it has meritorious defenses to such claims. However, no assurance can be given that such individuals will not be successful in any litigation relating to such claims.

Except as stated above, ArQule is not a party to any other legal proceedings.

MANAGEMENT

EXECUTIVE OFFICERS, KEY EMPLOYEES AND DIRECTORS

The following table sets forth certain information regarding the executive officers, key employees and directors of the Company as of August 15, 1996:

NAME - ----	AGE ---	POSITION -----
Eric B. Gordon.....	49	President, Chief Executive Officer and Director
Joseph C. Hogan, Jr., Ph.D.	55	Chairman of the Board, Senior Vice President of Research and Development, Chief Scientific Officer and Director
David L. Coffen, Ph.D.	58	Vice President of Chemistry
James R. Fitzgerald, Jr.	51	Vice President, Chief Financial Officer and Treasurer
John M. Sorvillo, Ph.D.	42	Vice President of Business Development
Steven L. Gallion, Ph.D.	39	Director of Computational Chemistry
Adrian de Jonge, Ph.D.(1).....	41	Director
Stephen M. Dow(2).....	41	Director
Allan R. Ferguson(1)(2).....	54	Director

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(1) Member of the Audit Committee.

(2) Member of the Compensation Committee.

Eric B. Gordon has been the President and Chief Executive Officer of the Company since January 1996. From 1987 until he joined the Company, Mr. Gordon served in various capacities with Pasteur Merieux Connaught, a pharmaceutical company, most recently as Vice President, Treasurer and CFO and since 1993 as Chief Executive Officer of Virogenetics Corporation, its wholly-owned subsidiary. Mr. Gordon received his A.M.P. from the Wharton School of Business of the University of Pennsylvania and his B.S. in Accounting and Finance from Syracuse University.

Joseph C. Hogan, Jr., Ph.D. is a founder of the Company and has served as the Chief Scientific Officer and Senior Vice President of Research and Development since its inception. Dr. Hogan has served as the Chairman of the Board since January 1996. From 1990 until he founded the Company, Dr. Hogan was the founder and president of Applied Modular Chemistries, Inc., a chemistry company. Dr. Hogan received his M.S. and B.S. in Chemistry from Boston College and his Ph.D. from Boston College and the Max Planck Institut fuer Kohlenforschung, Muelheim/Ruhr, Germany.

David L. Coffen, Ph.D. has been the Vice President of Chemistry since July 1995. From 1971 until he joined the Company, Dr. Coffen was employed by Hoffman-LaRoche Inc., a pharmaceutical company, in a variety of positions, most recently as Vice President of Molecular Sciences. Dr. Coffen received his Ph.D. in Synthetic Organic Chemistry from the Massachusetts Institute of Technology and his B.S. in Chemistry from the University of Toronto.

James R. Fitzgerald, Jr. joined the Company in July 1996 as the Chief Financial Officer. From 1988 until he joined the Company, Mr. Fitzgerald was the Chief Financial Officer of Hoyts Cinemas Corporation, an owner and operator of cinemas. Mr. Fitzgerald received his M.B.A. and his B.A. in Economics from

Northeastern University.

John M. Sorvillo, Ph.D. joined the Company in December 1995 as Vice President of Business Development. Prior to joining the Company, Dr. Sorvillo had provided consulting services to the Company since August 1995. From 1985 until he joined the Company, Dr. Sorvillo was employed by Oncogene Science, Inc., a biotechnology company, in a variety of positions, most recently as Vice President and General Manager. Dr. Sorvillo attended the Massachusetts Institute of Technology

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Program for Senior Executives. He received his Ph.D. in Immunology from the New York University Medical Center and his B.A. in Biology from the City University of New York, Hunter College.

Steven L. Gallion, Ph.D. joined the Company in 1994 as Research Fellow in Computational Chemistry. In 1995, he became the Company's Director of Computational Chemistry. Prior to joining the Company, he was employed by Marion Merrell Dow, Inc., a pharmaceutical company, as Senior Associate Scientist of Theoretical Chemistry from 1993 to 1994 and Associate Scientist of Theoretical Chemistry from 1992 to 1993. From 1989 to 1992, he was Director of Product Development of Amber Systems, Inc., a molecular modeling software company. He received his Ph.D. in Physical Chemistry from the University of Georgia and his B.S. in Chemistry from Southampton College of Long Island University.

Adrian de Jonge, Ph.D. has been a director of the Company since November 1995. Dr. de Jonge is the Vice President of Research of Solvay's Pharmaceuticals Division and has held such position since 1994. From 1987 through 1993, Dr. de Jonge was employed by Solvay in a variety of positions, most recently as Sector Manager of Drug Discovery.

Stephen M. Dow has been a director of the Company since its inception. Since 1983, he has been a general partner of Sevin Rosen Funds, a venture capital investment firm. Mr. Dow serves as a director of Citrix Systems, Inc. and several privately held companies.

Allan R. Ferguson has been a director of the Company since its inception. He has been a general partner of Atlas Venture since 1993 and managing partner of Aspen Ventures since 1991, both venture capital firms. From 1986 through 1991, Mr. Ferguson was the President of 3i Ventures, a venture capital firm. Prior to his venture capital experience, Mr. Ferguson held senior level positions in operations at Johnson & Johnson and Damon Biotech. Mr. Ferguson serves as a director of AutoImmune Inc. and several privately held companies.

The Company's Restated Certificate, to be filed concurrently with the closing of this offering, provides for a classified board of directors consisting of three classes, with each class being as nearly equal in number as possible. The term of one class expires and their successors are elected for a term of three years at each annual meeting of the Company's stockholders. The Company has designated two class I directors (Messrs. Dow and Gordon), two class II directors (Mr. Ferguson and Dr. Hogan) and one class III director (Dr. de Jonge). These class I, class II and class III directors will serve until the annual meetings of stockholders to be held in 1997, 1998 and 1999, respectively, and until their respective successors are duly elected and qualified, or until their earlier resignation or removal. The Restated Certificate provides that directors may be removed only for cause by a majority of stockholders. See "Description of Capital Stock--Anti-Takeover Measures." There are no family relationships among any of the directors or executive officers.

BOARD COMMITTEES

The Company has standing Audit and Compensation Committees of the Board of Directors. The Audit Committee consists of Mr. Ferguson and Dr. de Jonge. The primary function of the Audit Committee is to assist the Board of Directors in the discharge of its duties and responsibilities by providing the Board with an independent review of the financial health of the Company and of the reliability of the Company's financial controls and financial reporting systems. The Audit Committee reviews the general scope of the Company's annual audit, the fee charged by the Company's independent accountants and other matters relating to internal control systems.

The Compensation Committee of the Board of Directors determines the

compensation to be paid to all executive officers of the Company, including the Chief Executive Officer. The Compensation Committee's duties include the administration of the Company's Amended and Restated 1994 Equity Incentive Plan (the "Equity Plan") and the 1996 Employee Stock Purchase Plan. The Compensation Committee is currently composed of Messrs. Dow and Ferguson.

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SCIENTIFIC ADVISORY BOARD

The Company's Scientific Advisory Board consists of individuals with demonstrated expertise in various fields who advise the Company concerning long-term scientific planning, research and development. Members also evaluate the Company's research program, recommend personnel to the Company and advise the Company on technology matters. While the Scientific Advisory Board has not met collectively, its members have been available individually to advise the Company on specific scientific and technical issues. Scientific Advisory Board members are compensated on a time and expenses basis and have received shares of Common Stock of the Company. In the future, Scientific Advisory Board members also may receive options to purchase shares of Common Stock of the Company. The Company has entered into consulting agreements with a number of the Scientific Advisory Board members.

No member of the Scientific Advisory Board is employed by the Company, and members may have other commitments to or consulting or advisory contracts with their employers or other entities that may conflict or compete with their obligations to the Company. Accordingly, such persons are expected to devote only a small portion of their time to the Company. The members of the Company's Scientific Advisory Board are:

William D. Carlson, M.D., Ph.D. is the Director of Cardiovascular Research for Harvard Community Health Plan, Associate Physician at Brigham and Women's Hospital and Assistant Professor of Medicine at Harvard University Medical School. He is widely known for his work in drug development and structural biology including the renin-angiotensin and osteogenic growth factor systems. He received his Ph.D. in Molecular Biophysics and Biochemistry from Yale University and his M.D. from Yale Medical School.

George L. Kenyon, Ph.D. is the Dean of the School of Pharmacy and Professor of Chemistry and Pharmaceutical Chemistry at the University of California, San Francisco. He is widely known for his work in the mechanisms of enzymatic action, and synthetic and mechanistic chemistry and the development of structure-based approaches to the rational design of enzymatic inhibitions. He received his Ph.D. in Organic Chemistry from Harvard University.

Irwin D. Kuntz, Ph.D. is the Acting Director of the Molecular Design Institute, Chairman of the Graduate Group in Biophysics, and Professor in the Department of Pharmaceutical Chemistry at the University of California, San Francisco. He is widely known for his pioneering work in computational chemistry. He received his Ph.D. in Physical Chemistry from the University of California, Berkley.

Gregory Petsko, Ph.D. is the Lucille P. Markey Professor of Biochemistry and Chemistry, and Director of the Rosentel Basic Medical Sciences Research Center at Brandeis University. He is widely known for his work in the development of protein crystallography and its application to exploring fundamental aspects of protein folding. He received his Ph.D. in Molecular Biology from Oxford University.

Dagmar Ringe, Ph.D. is the Lucille P. Markey Associate Professor and Chair of the Graduate Program in Biophysics at Brandeis University. She is internationally recognized for her contributions to the use of x-ray crystallography to explore fundamental aspects of drug binding behavior. She received her Ph.D. in Organic Chemistry from Boston University.

William R. Roush, Ph.D. is a Professor of Chemistry at Indiana University. He is widely known for his basic studies and applications for a wide variety of synthetic chemical reactions. He received his Ph.D. in Chemistry from Harvard University.

K. Barry Sharpless, Ph.D. is the William M. Keck Professor of Chemistry at The Scripps Research Institute. He is widely known for his pioneering work in asymmetric chemical synthesis. He received his Ph.D. in Organic Chemistry from

1996 DIRECTOR STOCK OPTION PLAN

All of the directors who are not employees of the Company (the "Eligible Directors") are currently eligible to participate in the Company's 1996 Director Stock Option Plan (the "Director Plan"). Upon the adoption of the Director Plan and upon the election of an Eligible Director, such director or directors, as applicable, are automatically granted an option to purchase 7,500 shares of Common Stock (the "Initial Options"). The Initial Options become exercisable with respect to 2,500 shares on the date of the Company's next annual meeting of stockholders following the date of grant and on the date of each annual meeting of stockholders thereafter. In addition, options under the Director Plan are automatically granted once a year, at the annual meeting of stockholders of the Company, to Eligible Directors elected or reelected at the meeting. Each such Eligible Director receives an option to purchase 3,500 shares of Common Stock (the "Annual Options") for each year of the term of office to which the director is elected (normally, 10,500 shares for election to a three-year term of office). The Annual Options become exercisable with respect to 3,500 shares on the date on which the Annual Option was granted and on the date of each annual meeting of stockholders thereafter, so long as the optionee is then a director of the Company. The Initial Options and Annual Options have a term of ten years, and an exercise price payable in cash or shares of Common Stock. The Director Plan was adopted by the Board of Directors in August 1996 and, therefore, Initial Options for 7,500 shares were issued to each of Mr. Dow, Mr. Ferguson and Dr. de Jonge. The exercise price for the Initial Options granted on the date of the adoption of the Plan was \$11.00, the fair market value on such date as determined by the Board of Directors. The exercise price for the Initial Options and the Annual Options granted after the Company's Common Stock is quoted on the Nasdaq National Market will equal the last sale price for the Common Stock on the business day immediately preceding the date of grant, as reported on the Nasdaq National Market.

EXECUTIVE COMPENSATION

The following table sets forth certain information with respect to the annual and long-term compensation paid or accrued by the Company for services rendered to the Company in all capacities for the fiscal year ended December 31, 1995 by its Chief Executive Officer (both current and former), the current Chief Financial Officer and another executive officer of the Company whose total salary exceeded \$100,000 (the "Named Executive Officer").

SUMMARY COMPENSATION TABLE

NAME AND PRINCIPAL POSITION	ANNUAL COMPENSATION		LONG-TERM COMPENSATION
	SALARY	BONUS	NUMBER OF SECURITIES UNDERLYING OPTIONS
Eric B. Gordon(1)..... President and Chief Executive Officer	--	--	--
Joseph C. Hogan, Jr., Ph.D. Chairman of the Board, Senior Vice President of Research and Development and Chief Scientific Officer	\$150,000	--	--
James R. Fitzgerald, Jr.(2) Vice President, Chief Financial Officer and Treasurer	--	--	--
Seth L. Harrison, M.D.(3)..... Former Chief Executive Officer	56,000(4)	--	--

<FN>

- (1) Mr. Gordon commenced employment with the Company in January 1996. Terms of his employment are described under "--Executive Employment Agreements."
(2) Mr. Fitzgerald commenced employment with the Company in July 1996. Terms of

his employment are described under "-- Executive Employment Agreements."

- (3) Dr. Harrison has not been employed by the Company since July 1995.
- (4) This amount was paid to Dr. Harrison by Sevin Rosen Bayless Management Company and the Company then reimbursed Sevin Rosen Bayless Management Company for this payment. In addition, pursuant to the terms of a severance agreement with Dr. Harrison, the Company accelerated the vesting of 8,334 shares of Common Stock.

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Options. Neither Dr. Seth L. Harrison nor Dr. Joseph C. Hogan, Jr. have ever been issued options to purchase shares of Common Stock of the Company.

STOCK PLANS

Amended and Restated 1994 Stock Option Equity Plan. The Company's Equity Plan authorizes the grant of incentive stock options within the meaning of Section 422 of the Internal Revenue Code of 1986, as amended (the "Code"), and nonqualified stock options for the purchase of an aggregate of 2,600,000 shares (subject to adjustment for stock splits and similar capital changes) of Common Stock to employees of the Company and, in the case of non-qualified stock options, to consultants of the Company or any Affiliate (as defined in the Equity Plan) capable of contributing to the Company's performance. The Board of Directors has appointed the Compensation Committee to administer the Equity Plan. As of June 30, 1996, 1,135,920 shares of Common Stock were subject to outstanding options granted under the Equity Plan, leaving 1,464,080 shares available for issuance upon future grants under the Equity Plan.

1996 Employee Stock Purchase Plan. The Company has also adopted an employee stock purchase plan (the "Purchase Plan") under which employees may purchase shares of Common Stock at a discount from fair market value. There are 120,000 shares of Common Stock reserved for issuance under the Purchase Plan. To date, no shares of Common Stock have been issued under the Purchase Plan. The Purchase Plan is intended to qualify as an employee stock purchase plan within the meaning of Section 423 of the Code. Rights to purchase Common Stock under the Purchase Plan are granted at the discretion of the Compensation Committee, which determines the frequency and duration of individual offerings under the Plan and the dates when stock may be purchased. Eligible employees participate voluntarily and may withdraw from any offering at any time before stock is purchased. Participation terminates automatically upon termination of employment. The purchase price per share of Common Stock in an offering is 85% of the lesser of its fair market value at the beginning of the offering period or on the applicable exercise date and may be paid through payroll deductions, periodic lump sum payments or a combination of both. The Purchase Plan terminates on August 14, 2006.

401(k) PLAN

The Company has a 401(k) savings and retirement plan (the "401(k) Plan") which covers substantially all employees of the Company. The 401(k) Plan allows participants to agree to certain salary deferrals which the Company allocates to the participants' plan account. These amounts may not exceed statutorily mandated annual limits set forth in the Code. The Company currently does not match employee contributions to the 401(k) Plan but may do so in the future.

EXECUTIVE EMPLOYMENT AGREEMENTS

The Company has entered into employment agreements with Mr. Gordon and Mr. Fitzgerald. The Company agreed to employ Mr. Gordon as President and Chief Executive Officer of the Company, effective January 2, 1996, at an annual salary of \$225,000. In connection with this agreement, Mr. Gordon was granted options to acquire 387,434 shares of Common Stock at \$0.80 per share, which vest over four years, and options to acquire 77,486 shares of Common Stock at \$0.80 per share, which vest on the earlier of the achievement of certain milestones or five years. Mr. Gordon has also been provided with moving and relocation allowances. The agreement provides for continued employment until termination by either party. If Mr. Gordon is terminated by the Company without cause, the agreement provides that he will be entitled to receive his base salary, plus any benefits to which he is entitled and any options granted to Mr. Gordon which would have otherwise vested, for a period of up to six months following such termination of employment. In July 1996, the Company also made a loan in the principal amount of \$250,000 to Mr. Gordon. The principal amount of the loan

will be repaid in three annual installments beginning three years from the date of this offering and bears interest at the

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lowest applicable federal rate of interest as published by the Internal Revenue Service. See "Certain Transactions."

Under Mr. Fitzgerald's Agreement, the Company has agreed to employ Mr. Fitzgerald as Vice President and Chief Financial Officer of the Company, effective July 9, 1996, at an annual salary of \$150,000. In connection with the agreement, Mr. Fitzgerald was granted options, which vest over four years, to acquire 50,000 shares of Common Stock at \$6.00 per share. The agreement provides for continued employment until termination by either party. If Mr. Fitzgerald is terminated without cause by the Company during the first year of the agreement, he will be entitled to receive his base salary, plus any benefits to which he is entitled and any options granted to Mr. Fitzgerald which would have otherwise vested, for a period of up to six months.

COMPENSATION COMMITTEE INTERLOCKS AND INSIDER PARTICIPATION

The Compensation Committee is responsible for determining salaries, incentives and other forms of compensation for directors, officers and other employees of the Company. The Compensation Committee also administers various incentive compensation and benefit plans. See "Management--Stock Plans." The Compensation Committee currently consists of Stephen M. Dow and Allan R. Ferguson. Mr. Dow is a general partner of Sevin Rosen Funds, a venture capital firm and a principal stockholder of the Company. Mr. Ferguson is a general manager of Atlas Venture, a venture capital firm and a principal stockholder of the Company. See "Principal Stockholders" and "Certain Transactions."

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CERTAIN TRANSACTIONS

In December 1993, in exchange for the transfer to the Company of substantially all of the assets and liabilities of ArQule Partners, L.P., a Delaware limited partnership (the "Partnership"), the Company issued 1,500 shares of its Common Stock to the Partnership, at which time the Partnership became the sole stockholder of the Company. In November 1994, the Company declared a stock dividend of 3,332.33 shares of its Common Stock on each outstanding share of Common Stock held by the Partnership as of October 17, 1994. After certain transfers of Common Stock by the Partnership in November 1994, all the remaining outstanding shares of Common Stock then held by the Partnership were surrendered to the Company in exchange for shares of Series A Convertible Preferred Stock, \$0.01 par value per share (the "Series A Preferred Stock"), which will convert into 4,295,500 shares of Common Stock concurrently with the closing of this offering.

In November 1993, the Company made a loan in the amount of \$63,000 to Joseph C. Hogan, Jr., Ph.D., Chairman and Chief Scientific Officer of the Company, which loan is represented by a promissory note due and payable in November 1996, and which bears interest at the lowest applicable federal rate of interest as published by the Internal Revenue Service. The entire principal and accrued interest is currently outstanding.

During the period from August 1994 through February 1995, Sevin Rosen Fund IV L.P., Atlas Venture Fund, II, L.P. and Atlas Venture Europe Fund B.V. made a series of bridge loans to the Company in the aggregate amount of \$2,400,000 (the "Bridge Loans") in exchange for promissory notes and warrants to purchase an aggregate of 155,300, 58,229 and 26,471 shares of Common Stock, respectively, exercisable at \$0.25 per share until the earlier of the effective date of an initial public offering or various dates through December 31, 1999 (the "Bridge Warrants"). In November 1995, the principal amount of the promissory notes representing the Bridge Loans was converted into shares of Series A Preferred Stock, which will convert into an aggregate of 960,000 shares of Common Stock

concurrently with the closing of this offering. It is anticipated that the Bridge Warrants will be exercised on a cashless basis prior to the closing of this offering.

In November 1995, the Company issued 1,800,000 shares of Series B Convertible Preferred Stock, \$.01 par value per share (the "Series B Preferred Stock"), to Physica B.V. for cash at a purchase price of \$3.89 per share. Such shares of Series B Preferred Stock will convert into 900,000 shares of Common Stock concurrently with the closing of this offering. Physica B.V. is an affiliate of Solvay Duphar B.V., with whom the Company has a major corporate collaboration. See "Business--ArQule's Drug Discovery Programs."

Also in November 1995, the Company made a loan in the amount of \$120,000 to Dr. Hogan. The loan is represented by a promissory note and is secured by shares of Common Stock issuable to Dr. Hogan upon dissolution of the Partnership. The loan bears interest at the lowest applicable federal rate of interest as published by the Internal Revenue Service. The original principal amount of the loan is forgiven at a rate of 25% per year on each anniversary date of the note as long as Dr. Hogan is employed by the Company. The entire principal and accrued interest is currently outstanding.

In April 1996, all accrued interest outstanding on the Bridge Loans through November 1995 in the aggregate amount of \$142,000 was converted into shares of Series A Preferred Stock, which will convert into an aggregate of 56,714 shares of Common Stock concurrently with the closing of this offering. In addition, in consideration of the waiver by Physica B.V. of its anti-dilution rights under the Company's Amended and Restated Certificate of Incorporation and its right of first refusal with respect to such shares of Series A Preferred Stock, the Company issued to Physica B.V. additional shares of Series B Preferred Stock, which will convert into 7,734 shares of Common Stock concurrently with the closing of this offering.

In July 1996, the Company made a loan in the amount of \$250,000 to Eric B. Gordon, the President, Chief Executive Officer and a director of the Company, which loan is secured by shares of Common Stock issuable to Mr. Gordon upon the exercise of options. The loan is represented by a promissory note which is due and payable in three equal annual installments beginning three years from the date of this offering and which bears interest at the lowest applicable federal rate of interest as published by the Internal Revenue Service. The entire principal and accrued interest is currently outstanding.

PRINCIPAL STOCKHOLDERS

The following table and footnotes set forth certain information regarding the beneficial ownership of the Company's Common Stock as of August 15, 1996, by (i) persons known by the Company to be beneficial owners of more than 5% of the Common Stock, (ii) the Chief Executive Officer (both current and former) and the Named Executive Officer, (iii) each director of the Company and (iv) all current executive officers and directors as a group:

BENEFICIAL OWNERS (2) (3)	NUMBER OF SHARES BENEFICIALLY OWNED (1)	PERCENTAGE OF SHARES BENEFICIALLY OWNED (1)	
		BEFORE OFFERING	AFTER OFFERING
Atlas Venture (4)..... 222 Berkeley Street Boston, MA 02116	1,355,738	19.43%	15.10%
Physica B.V. (5)..... C.J. van Houtenlaan, 36 1381 CD Weiss The Netherlands	907,734	13.01%	10.11%
Sevin Rosen Fund IV L.P. (6)..... 13455 Noel Road, Suite 1670 Dallas, TX 75240	2,362,833	33.87%	26.32%

Adrian de Jonge, Ph.D.(7).....	907,734	13.01%	10.11%
Stephen M. Dow(8).....	2,362,833	33.87%	26.32%
Allan R. Ferguson(9).....	1,355,738	19.43%	15.10%
Eric B. Gordon(10).....	38,743	*	*
Seth L. Harrison, M.D.(11).....	128,689	1.84%	1.43%
Joseph C. Hogan, Jr., Ph.D.(12).....	1,208,194	17.32%	13.46%
All current executive officers and directors as a group (6 persons)(13).....	5,873,242	83.72%	65.15%

<FN>

* Indicates less than 1%.

- (1) Reflects the conversion, prior to or contemporaneously with the closing of this offering, of all outstanding shares of preferred stock of the Company into an aggregate of 6,219,948 shares of Common Stock of the Company and the issuance of 234,992 shares of Common Stock upon the cashless exercise of outstanding warrants. The number of shares of Common Stock deemed outstanding after this offering includes the 2,000,000 shares of Common Stock of the Company being offered for sale by the Company in this offering. The persons and entities named in the table have sole voting and investment power with respect to the shares beneficially owned by them, except as noted below. Share numbers include shares of Common Stock issuable pursuant to the outstanding options and warrants that may be exercised within 60 days after August 15, 1996.
- (2) Except as otherwise indicated above, the address of each stockholder identified above is c/o the Company, 200 Boston Avenue, Medford, MA 02155.
- (3) ArQule Partners, L.P., which holds 4,295,500 shares of Common Stock, representing 61.57% before the offering and 47.85% after the offering, has not been included in this table. The partners of the Partnership have agreed to dissolve the Partnership. The general partners have, pursuant and subject to the Second Amended and Restated Agreement of the Limited Partnership, as amended, delegated to an Investment Committee voting and investment discretion over the shares held by the Partnership. Messrs. Dow, Ferguson, Joseph C. Hogan, III and Dr. Hogan are members of the Investment Committee of the Partnership. Each of Messrs. Dow, Ferguson,

Joseph C. Hogan, III and Dr. Hogan disclaims beneficial ownership of the shares held by the Partnership, except to the extent of his proportionate pecuniary interest in the Partnership. See "The Company" and footnotes (4), (6) and (12).

- (4) Consists of (i) 303,258 shares owned by Atlas Venture Fund II, L.P., (ii) 138,274 shares owned by Atlas Venture Europe Fund B. V. (collectively, "Atlas Venture"), (iii) 628,300 shares estimated to be distributed by the Partnership to Atlas Venture Fund II, L.P., and (iv) 285,906 shares estimated to be distributed by the Partnership to Atlas Venture Europe Fund B.V. The voting and investment discretion over the shares owned by Atlas Venture Fund II, L.P. is exercised by the general partners of Atlas Venture Associates II, L.P., its general partner. The general partners of Atlas Venture Associates II, L.P. are Allan R. Ferguson, Barry J. Fidelman, Jean-Francois Formela and Christopher J. Spray. Because of this relationship, Allan R. Ferguson, a director of the Company, shares voting and investment discretion over such shares. Atlas Venture Europe Fund B.V. is a corporation wholly-owned by Atlas InvesteringGroep N.V. ("AIG"). The voting and investment discretion over the shares owned by Atlas Venture Europe Fund B.V. is exercised by the managing directors of AIG, Michiel A. de Haan and Evert H. Smid. Three officers of AIG, Gerard H. Montanus, Hans Bosman and Jaap van Hellemond, share voting and investment discretion with these two managing directors over the shares held by Atlas Venture Europe Fund B.V. The numbers of shares of Common Stock attributed to Atlas Venture in clauses (iii) and (iv) are estimates of the number of shares that will be distributed to Atlas Venture upon the dissolution of the Partnership assuming (a) the fair market value per share at the time of dissolution is equal to the assumed initial public offering price of \$12.00 and (b) the

further pro rata distribution by LII, a general partner of the Partnership, to its stockholders (which include Atlas Venture) of the ArQule shares distributed to it by the Partnership. See "The Company." The actual number of shares received by each partner in the Partnership will depend on the per share valuation at the time of the distribution.

- (5) The voting and investment discretion over the shares owned by Physica B.V. is exercised by the sole director of Physica B.V., J.W.F. van Ingen.
 - (6) Consists of (i) 810,174 shares owned by Sevin Rosen Fund IV L.P. ("Sevin Rosen") and (ii) 1,552,659 shares estimated to be distributed by the Partnership to Sevin Rosen. The voting and investment discretion over the shares owned by Sevin Rosen is exercised by the general partner of SRB Associates IV L.P., its general partner. The general partners of SRB Associates L.P. are Stephen M. Dow, Jon W. Bayless, Charles H. Phipps, Dennis J. Gorman, and John V. Jagers. Because of this relationship, Stephen M. Dow, a director of the Company, shares voting and investment discretion over such shares. The number of shares of Common Stock attributed to Sevin Rosen is an estimate of the number of shares that will be distributed to Sevin Rosen upon the dissolution of the Partnership assuming (a) the fair market value per share at the time of dissolution is equal to the assumed initial public offering price of \$12.00 and (b) the further pro rata distribution by LII, to its stockholders (which include Sevin Rosen) of the ArQule shares distributed to it by the Partnership. See "The Company." The actual number of shares received by each partner in the Partnership will depend on the per share valuation at the time of the distribution.
 - (7) Consists of 907,734 shares of Common Stock owned by Physica B.V. Dr. de Jonge is Vice President of Research of Solvay's Pharmaceuticals Division, an affiliate of Physica B.V. Dr. de Jonge disclaims beneficial ownership of the shares held by Physica B.V.
 - (8) Consists of 2,362,833 shares owned by or attributed to Sevin Rosen. Mr. Dow is a general partner of SRB Associates IV L.P. which is the general partner of Sevin Rosen. Mr. Dow disclaims beneficial ownership of the shares owned by or attributed to Sevin Rosen, except to the extent of his pecuniary interest therein. See footnote (6).
 - (9) Consists of 1,355,738 shares owned by or attributed to Atlas Venture. Mr. Ferguson is a general partner of Atlas Venture Associates II, L.P., which is the general partner of Atlas Venture Fund II, L.P. Mr. Ferguson disclaims beneficial ownership of the shares owned by or attributed to Atlas Venture, except to the extent of his pecuniary interest therein. See footnote (4).
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- (10) Represents shares of Common Stock subject to options that become exercisable upon the closing of this offering.
 - (11) Includes 41,189 shares estimated to be distributed by the Partnership to Dr. Harrison. The number of shares attributed to Dr. Harrison is an estimate of the number of shares that will be distributed to him upon the dissolution of the Partnership assuming the fair market value per share at the time of dissolution is equal to the assumed initial public offering price of \$12.00. See "The Company." The actual number of shares received by each partner in the Partnership will depend on the per share valuation at the time of the distribution.

(12) Consists of 1,208,194 shares estimated to be distributed by the Partnership to Dr. Hogan. The number of shares attributed to Dr. Hogan is an estimate of the number of shares that will be distributed to Dr. Hogan (187,500 shares) and to a limited partnership of which certain of Dr. Hogan's family members are beneficiaries (1,020,835 shares) upon the dissolution of the Partnership assuming (a) the fair market value per share at the time of dissolution is equal to the assumed initial public offering price of \$12.00 and (ii) the further pro rata distribution by LTI, a general partner of the Partnership, to its stockholders (which include Mr. Hogan) of the ArQule shares distributed to it by the Partnership. See "The Company." The actual number of shares received by each partner in the Partnership will depend on the per share valuation at the time of the distribution.

(13) Includes 38,743 shares of Common Stock subject to options that are either presently exercisable or will become exercisable within 60 days after August 15, 1996. See footnotes (7), (8), (9), (10) and (12).

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DESCRIPTION OF CAPITAL STOCK

Upon the closing of this offering, the authorized capital stock of the Company will consist of 30,000,000 shares of Common Stock, \$0.01 par value per share, and 1,000,000 shares of Preferred Stock, \$0.01 par value per share, after giving effect to the filing of the Company's Restated Certificate. As of the date of this Prospectus, the Company had 32 shareholders. Upon the closing of this offering, the Company will have 8,976,487 shares of Common Stock outstanding.

The following summary of certain provisions of the Common Stock and Preferred Stock does not purport to be complete and is subject to, and qualified in its entirety by, the provisions of the Company's Restated Certificate, the form of which is included as an exhibit to the Registration Statement, and by the provisions of applicable law.

COMMON STOCK

Holders of Common Stock are entitled to one vote per share on matters to be voted upon by the stockholders. There are no cumulative voting rights. Holders of Common Stock are entitled to receive dividends when, as and if declared by the Board of Directors out of funds legally available therefor. Upon the liquidation, dissolution or winding up of the Company, holders of Common Stock share ratably in the assets of the Company available for distribution to its stockholders, subject to the preferential rights of any then outstanding shares of Preferred Stock. The Common Stock outstanding upon the effective date of the Registration Statement, and the shares offered by the Company hereby, upon issuance and sale, will be fully paid and nonassessable.

PREFERRED STOCK

The Company's Board of Directors has the authority to issue up to 1,000,000 shares of Preferred Stock in one or more series and to fix the relative rights, preferences, privileges, qualifications, limitations and restrictions thereof, including dividend rights, dividend rates, conversion rights, voting rights, terms of redemption, redemption prices, liquidation preferences and the number of shares constituting any series or the designation of such series, without further vote or action by the stockholders. The Board of Directors could, without the approval of the stockholders, issue Preferred Stock having voting or conversion rights that could adversely affect the voting power of the holders of Common Stock and the issuance of Preferred Stock could be used, under certain circumstances, to render more difficult or discourage a hostile takeover of the Company. No shares of Preferred Stock will be outstanding immediately following the closing of the offering and the Company has no present plans to issue any shares of Preferred Stock.

ANTI-TAKEOVER MEASURES

In addition to the Board of Directors' ability to issue shares of Preferred Stock, the Restated Certificate and the By-laws of the Company contain several other provisions that are commonly considered to discourage unsolicited takeover bids. The Restated Certificate includes provisions classifying the Board of Directors into three classes with staggered three-year terms and prohibiting stockholder action by written consent. Under the Restated Certificate and By-laws, the Board of Directors may enlarge the size of the Board and fill any vacancies on the Board. The By-laws provide that nominations for directors may not be made by stockholders at any annual or special meeting unless the stockholder intending to make a nomination notifies the Company of its intention a specified period in advance and furnishes certain information. The By-laws also provide that special meetings of the Company's stockholders may be called only by the President or the Board of Directors and require advance notice of business to be brought by a stockholder before the annual meeting.

In February 1988, a law regulating corporate takeovers (the "Anti-Takeover Law") took effect in Delaware. In certain circumstances, the Anti-Takeover Law prevents certain Delaware corporations, including those whose securities are listed on the Nasdaq National Market, from engaging in a "business combination" (which includes a merger or sale of more than 10% of the corporation's assets)

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with an "interested stockholder" (a stockholder who owns 15% or more of the corporation's outstanding voting stock) for three years following the date on which such stockholder became an "interested stockholder" subject to certain exceptions, unless the transaction is approved by the board of directors and the holders of at least 66 2/3% of the outstanding voting stock of the corporation (excluding shares held by the interested stockholder). The statutory ban does not apply if, upon consummation of the transaction in which any person becomes an interested stockholder, the interested stockholder owns at least 85% of the outstanding voting stock of the corporation (excluding shares held by persons who are both directors and officers or by certain employee stock plans). A Delaware corporation subject to the Anti-Takeover Law may "opt out" of the Anti-Takeover Law with an express provision either in its certificate of incorporation or by-laws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares; such an amendment is effective following expiration of twelve months from adoption. The Company is a Delaware corporation that is subject to the Anti-Takeover Law and has not "opted out" of its provisions.

The foregoing provisions of Delaware law and the Restated Certificate and By-laws could have the effect of discouraging others from attempting a hostile takeover of the Company and, as a consequence, they may also inhibit temporary fluctuations in the market price of the Common Stock that might result from actual or rumored hostile takeover attempts. Such provisions may also have the effect of preventing changes in the management of the Company. It is possible that such provisions could make it more difficult to accomplish transactions which stockholders may otherwise deem to be in their best interests.

TRANSFER AGENT

The transfer agent and registrar for the Common Stock is American Stock Transfer & Trust Company.

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SHARES ELIGIBLE FOR FUTURE SALE

Upon completion of this offering, the Company will have 8,976,487 shares of Common Stock outstanding, assuming no exercise of the Underwriters' over-allotment option or of any other outstanding options. Of these shares, the 2,000,000 shares sold in this offering will be freely tradable, without restriction or further registration under the Securities Act, except for shares purchased by "affiliates" of the Company as that term is defined in Rule 144 under the Securities Act.

The remaining 6,976,487 outstanding shares of Common Stock are owned by existing stockholders and are deemed "Restricted Shares" under Rule 144. These may not be resold, except pursuant to an effective registration statement or an

applicable exemption from registration. Of these remaining shares, approximately 151,972 shares of Common Stock will be eligible for sale under Rules 144 and 701 on the ninety-first day after the effectiveness of this offering. Stockholders of the Company, holding in the aggregate 6,824,515 shares of Common Stock, have agreed to enter into the 180-day lock-up agreements described below. At the end of such 180-day period, an additional 5,916,781 shares of Common Stock will be eligible for sale under Rules 144 and 701. The remaining Restricted Shares will become eligible from time to time thereafter upon the expiration of the minimum two-year holding period prescribed by Rule 144.

In general, under Rule 144, as currently in effect, a person (or persons whose shares are aggregated), including an affiliate, who has beneficially owned Restricted Shares for at least two years from the later of the date such Restricted Shares were acquired from the Company and (if applicable) the date they were acquired from an affiliate, is entitled to sell, within any three-month period, a number of shares that does not exceed the greater of 1% of the then outstanding shares of Common Stock or the average weekly trading volume in the public market during the four calendar weeks preceding such sale. Sales under Rule 144 are also subject to certain requirements as to the manner and notice of sale and the availability of public information concerning the Company. All sales of shares of the Company's Common Stock, including Restricted Shares, held by affiliates of the Company must be sold under Rule 144, subject to the foregoing volume limitations and other restrictions.

The Commission has proposed an amendment to Rule 144 which would reduce the holding period required for shares subject to Rule 144 from two years to one year. If this proposal is adopted as of the expected closing of this offering, an additional 907,734 shares of Common Stock would become eligible for sale by existing stockholders to the public after the expiration of the 180-day lock-up period.

The Company's directors and executive officers and certain of its stockholders have agreed that they will not, without the prior consent of the representatives of the Underwriters, offer to sell, sell, contract to sell, grant any option to sell or otherwise dispose of or require the Company to file with the Commission a registration statement under the Act to register any shares of Common Stock or securities convertible or exchangeable for shares of Common Stock or warrants or other rights to acquire shares of Common Stock during the 180-day period following the effective date of the Registration Statement.

The Company plans to file registration statements under the Securities Act to register 2,600,000, 125,000 and 120,000 shares of Common Stock issuable under the Equity Plan, the Director Plan and the Stock Purchase Plan, respectively, 180 days after the date of this Prospectus. Upon registration, such shares will be eligible for immediate resale upon exercise, subject, in the case of affiliates, to the volume, manner of sale and notice requirements of Rule 144.

No prediction can be made as to the effect, if any, that market sales of additional shares or the availability of such additional shares for sale will have on the market price of the Common Stock. Nevertheless, sales of substantial amounts of Common Stock in the public market may have an adverse impact on the market price for the Common Stock. See "Risk Factors-Dilution."

REGISTRATION RIGHTS

The holders of the 6,219,948 shares of Common Stock to be issued on conversion of the Series A Preferred Stock and Series B Preferred Stock (the "Registrable Shares") are entitled to certain rights with respect to registration under the Securities Act of the Registrable Shares. If the Company proposes to register any of its securities under the Securities Act, either for its own account or for the account of other security holders, such holders are entitled to notice of such registration and are entitled to include such Registrable Shares in the registration. The rights are subject to certain conditions and limitations, among them, the right of the underwriters of a registered offering to limit the number of shares included in such registration. Holders of Registrable Shares benefiting from these rights may also require the Company to file at its expense a registration statement under the Securities Act with respect to their shares of Common Stock and, subject to certain conditions and limitations, the Company is required to use its best efforts to effect such

registration. Furthermore, such holders may, subject to certain conditions and limitations, require the Company to file additional registration statements on Form S-3 with respect to such Registrable Shares. In connection with this offering, such holders waived their right to have shares of Common Stock registered under the Securities Act as part of this offering.

UNDERWRITING

Subject to the terms and conditions of the Underwriting Agreement, the Underwriters named below, through their Representatives, Hambrecht & Quist LLC, Oppenheimer & Co., Inc. and Vector Securities International, Inc., have severally agreed to purchase from the Company the following respective numbers of shares of Common Stock:

NAME ----	NUMBER OF SHARES -----
Hambrecht & Quist LLC.....	
Oppenheimer & Co., Inc.	
Vector Securities International, Inc.	

Total.....	2,000,000 =====

The Underwriting Agreement provides that the obligations of the Underwriters are subject to certain conditions precedent, including the absence of any material adverse change in the Company's business and the receipt of certain certificates, opinions and letters from the Company, its counsel and its independent auditors. The nature of the Underwriters' obligation is such that they are committed to purchase all shares of Common Stock offered hereby if any such shares are purchased.

The Underwriters propose to offer the shares of Common Stock directly to the public at the initial public offering price set forth on the cover page of this Prospectus and to certain dealers at such price less a concession not in excess of \$ per share. The Underwriters may allow, and such dealers may reallocate, a concession not in excess of \$ per share to certain other dealers. The Representatives of the Underwriters have advised the Company that the Underwriters do not intend to confirm any shares to any accounts over which they exercise discretionary authority. After the initial public offering of the shares, the offering price and other selling terms may be changed by the Representatives of the Underwriters.

The Company has granted to the Underwriters an option, exercisable no later than 30 days after the date of this Prospectus, to purchase up to 300,000 additional shares of Common Stock at the initial public offering price, less the underwriting discount, set forth on the cover page of this Prospectus. To the extent that the Underwriters exercise this option, each of the Underwriters will have a firm commitment to purchase approximately the same proportion thereof which the number of shares of Common Stock to be purchased by it shown in the above table bears to the total number of shares of Common Stock offered hereby. The Company will be obligated, pursuant to the option, to sell shares to the Underwriters to the extent the option is exercised. The Underwriters may exercise such option only to cover over-allotments made in connection with the sale of shares of Common Stock offered hereby.

The offering of the shares is made for delivery when, as and if accepted by the Underwriters and subject to prior sale and to withdrawal, cancellation or modification of the offering without notice. The Underwriters reserve the right to reject an order for the purchase of shares in whole or in part.

The Company has agreed to indemnify the Underwriters against certain liabilities, including liabilities under the Securities Act, and to contribute to payments the Underwriters may be required to make in respect thereof.

Certain existing stockholders of the Company, including the Company's

executive officers and directors, who will own in the aggregate 6,824,515 shares of Common Stock after the offering, have agreed that they will not, without the prior written consent of Hambrecht & Quist LLC, offer, sell or otherwise dispose of any shares of Common Stock, options or warrants to acquire shares of Common Stock or securities exchangeable for or convertible into shares of Common Stock owned by them during the 180-day period following the date of this Prospectus. The Company has agreed that, subject to limited exceptions, it will not, without the prior written consent of Hambrecht & Quist LLC, offer, sell or otherwise dispose of any shares of Common Stock, options or warrants to acquire shares of

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Common Stock or securities exchangeable for or convertible into shares of Common Stock during the 180-day period following the date of this Prospectus.

Prior to this offering, there has been no public market for the Common Stock. The initial public offering price for the Common Stock will be determined by negotiation among the Company and the Representatives. Among the factors to be considered in determining the initial public offering price are prevailing market and economic conditions, revenues and earnings of the Company, market valuations of other companies engaged in activities similar to those of the Company, estimates of the business potential and prospects of the Company, the present state of the Company's business operations, the Company's management and other factors deemed relevant. The estimated initial public offering price range set forth on the cover of this preliminary prospectus is subject to change as a result of market conditions and other factors.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby will be passed upon for the Company by Palmer & Dodge LLP, Boston, Massachusetts. Michael Lytton, a partner of Palmer & Dodge LLP, is the Secretary of the Company and Lynnette C. Fallon, also a partner of Palmer & Dodge LLP, is the Assistant Secretary of the Company. Certain legal matters in connection with this offering will be passed upon for the Underwriters by Testa, Hurwitz & Thibault, LLP, Boston, Massachusetts.

EXPERTS

The financial statements as of December 31, 1994 and 1995 and for each of the two years in the period ended December 31, 1995 and for the period from inception (May 6, 1993) through December 31, 1993 included in this Prospectus have been so included in reliance on the report of Price Waterhouse LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting.

ADDITIONAL INFORMATION

The Company has filed with the Securities and Exchange Commission (the "Commission") a Registration Statement on Form S-1 (the "Registration Statement") under the Securities Act, with respect to the shares of Common Stock offered hereby. This Prospectus does not contain all of the information set forth in the Registration Statement and the exhibits and schedules thereto. For further information with respect to the Company and the Common Stock offered hereby, reference is made to the Registration Statement and the exhibits and schedules thereto. All statements made in this Prospectus regarding the contents of any contract, agreement or other document filed as an exhibit to the Registration Statement are qualified by reference to the copy of such document filed as an exhibit to the Registration Statement. A copy of the Registration Statement may be inspected without charge at the offices of the Commission, 450 Fifth Street, N.W., Washington, D.C. 20549, and copies of all or any part thereof may be obtained from the Commission upon the payment of certain fees prescribed by the Commission. Such reports and other information can also be reviewed through the Commission's Web site (<http://www.sec.gov>).

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ARQULE, INC.

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REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors and
Stockholders of ArQule, Inc.

The stock split described in Note 11 to the financial statements has not been consummated at October 2, 1996. When it has been consummated, we will be in a position to furnish the following report:

"In our opinion, the accompanying balance sheet and the related statements of operations, of redeemable preferred stock and stockholders' equity (deficit) and of cash flows present fairly, in all material respects, the financial position of ArQule, Inc. at December 31, 1995 and 1994, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 1995 and for the period from inception (May 6, 1993) through December 31, 1993 in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above."

PRICE WATERHOUSE LLP
Boston, Massachusetts
October 2, 1996

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ARQULE, INC.
BALANCE SHEET

	DECEMBER 31,		JUNE 30, 1996	PRO FORMA
	1994	1995		JUNE 30, 1996
				(NOTE 10)
				(UNAUDITED)
ASSETS				
Current assets:				
Cash and cash equivalents.....	\$ 425,000	\$ 2,989,000	\$ 2,567,000	\$ 2,567,000
Marketable securities.....	--	4,802,000	3,800,000	3,800,000
Restricted cash.....	--	50,000	50,000	50,000
Prepaid expenses and other current assets.....	29,000	73,000	30,000	30,000
Notes receivable from related party.....	--	93,000	93,000	93,000
	-----	-----	-----	-----
Total current assets.....	454,000	8,007,000	6,540,000	6,540,000
Restricted cash.....	288,000	50,000	50,000	50,000
Property and equipment, net.....	1,502,000	1,994,000	5,134,000	5,134,000
Other assets.....	14,000	49,000	49,000	49,000
Notes receivable from related party.....	63,000	90,000	75,000	75,000
	-----	-----	-----	-----
	\$2,321,000..	\$10,190,000	\$11,848,000	\$11,848,000
	=====	=====	=====	=====
LIABILITIES, REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)				
Current liabilities:				
Current portion of capital lease obligations...	\$ 341,000	\$ 514,000	\$ 836,000	\$ 836,000
Bridge financing -- related party.....	1,594,000	--	--	--
Accounts payable and accrued expenses.....	627,000	769,000	1,177,000	1,177,000
Deferred revenue.....	--	1,650,000	3,133,000	3,133,000
	-----	-----	-----	-----
Total current liabilities.....	2,562,000	2,933,000	5,146,000	5,146,000
	-----	-----	-----	-----
Capital lease obligations.....	962,000	911,000	1,426,000	1,426,000
	-----	-----	-----	-----
Deferred revenue.....	--	458,000	--	--
	-----	-----	-----	-----
Series B mandatorily redeemable convertible preferred stock, 1,800,000 and 1,815,468 shares issued and outstanding at December 31, 1995 and June 30, 1996, respectively, stated at net issuance price plus accretion; no shares outstanding pro forma.....	--	6,888,000	6,898,000	--
	-----	-----	-----	-----
Stockholders' equity (deficit):				
Convertible preferred stock, \$0.01 par value; 15,000,000 shares authorized				
Series A convertible preferred stock, 8,591,000, 10,511,000 and 10,624,429 shares issued and outstanding at December 31, 1994 and 1995 and June 30, 1996, respectively, stated at issuance price (liquidation preference \$9,354,790); no shares outstanding pro forma.....	86,000	2,486,000	2,628,000	--
Common stock, \$0.01 par value; 20,000,000 shares authorized; 554,597, 522,797 and 523,047 shares issued and outstanding at December 31, 1994 and 1995 and June 30, 1995, respectively; 6,977,987 shares outstanding pro forma.....	6,000	5,000	5,000	70,000
Additional paid-in capital.....	4,376,000	4,435,000	4,435,000	13,896,000
Accumulated deficit.....	(5,671,000)	(7,926,000)	(8,690,000)	(8,690,000)
	-----	-----	-----	-----
Total stockholders' equity (deficit)....	(1,203,000)	(1,000,000)	(1,622,000)	5,276,000
	-----	-----	-----	-----
Commitments and contingency (Note 13).....	--	--	--	--
	-----	-----	-----	-----
	\$ 2,321,000	\$10,190,000	\$11,848,000	\$11,848,000
	=====	=====	=====	=====

The accompanying notes are an integral part of these financial statements.

ARQULE, INC.
STATEMENT OF OPERATIONS

	PERIOD FROM INCEPTION (MAY 6, 1993) THROUGH DECEMBER 31, 1993	YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
		1994	1995	1995	1996
					(UNAUDITED)
Revenue:					
Compound development revenue.....	\$ --	\$ 85,000	\$ 1,830,000	\$ 521,000	\$ 1,475,000
Compound development revenue--related party....	--	--	500,000	--	1,500,000
License option fees.....	--	--	1,000,000	1,000,000	--
	-----	-----	-----	-----	-----
	--	85,000	3,330,000	1,521,000	2,975,000
	-----	-----	-----	-----	-----
Costs and expenses:					
Cost of revenue.....	--	--	1,367,000	392,000	962,000
Cost of revenue--related party.....	--	--	277,000	--	973,000
Research and development.....	769,000	2,806,000	2,095,000	1,213,000	1,119,000
General and administrative....	687,000	1,346,000	1,557,000	806,000	828,000
	-----	-----	-----	-----	-----
	1,456,000	4,152,000	5,296,000	2,411,000	3,882,000
	-----	-----	-----	-----	-----
Loss from operations.....	(1,456,000)	(4,067,000)	(1,966,000)	(890,000)	(907,000)
Interest income.....	--	--	133,000	11,000	172,000
Interest expense.....	(9,000)	(139,000)	(419,000)	(190,000)	(19,000)
	-----	-----	-----	-----	-----
Net loss.....	\$ (1,465,000)	\$ (4,206,000)	\$ (2,252,000)	\$ (1,069,000)	\$ (754,000)
	=====	=====	=====	=====	=====
Unaudited pro forma net loss per share assuming conversion of convertible preferred stock (Note 10):					
Net loss per share.....			\$ (0.33)		\$ (0.10)
			=====		=====
Shares used in computing net loss per share.....			6,853,000		7,443,000
			=====		=====

The accompanying notes are an integral part of these financial statements.

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ARQULE, INC.

STATEMENT OF REDEEMABLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)

	STOCKHOLDERS' EQUITY (DEFICIT)				
	SERIES B MANDATORILY REDEEMABLE CONVERTIBLE PREFERRED STOCK		SERIES A CONVERTIBLE PREFERRED STOCK		COMMON STOCK
	SHARES	AMOUNT	SHARES	AMOUNT	SHARES
Capital contributions from ArQule Partners, L.P. (Note 1).....					
Net loss.....					
Issuance of common stock on December 30, 1993 in exchange for partnership assets and liabilities.....					1,500

BALANCE AT DECEMBER 31, 1993.....					1,500
Capital contribution from ArQule Partners, L.P.					

(Note 1).....					
3,333.33 for 1 stock split effected in the form of a stock dividend.....					4,998,500
Cancellation of common stock.....					(140,528)
Issuance of Series A convertible preferred stock in exchange for common stock.....	8,591,000	\$ 86,000			(4,295,500)
Cancellation of unvested portion of restricted stock upon employee termination.....					(9,375)
Issuance of common stock purchase warrants under bridge financing.....					
Net loss.....					
BALANCE AT DECEMBER 31, 1994.....	8,591,000		86,000		554,597
Employee restricted stock purchases.....					68,200
Issuance of common stock purchase warrants under bridge financing.....					
Cancellation of unvested portion of restricted stock upon employee termination.....					(100,000)
Conversion of bridge notes into Series A convertible preferred stock.....	1,920,000		2,400,000		
Issuance of Series B mandatorily redeemable convertible preferred stock, net of issuance costs of \$115,000.....	1,800,000	\$6,885,000			
Accretion of Series B mandatorily redeemable preferred stock to redemption value.....		3,000			
Net loss.....					
BALANCE AT DECEMBER 31, 1995.....	1,800,000	6,888,000	10,511,000	2,486,000	522,797
Conversion of interest on bridge notes to Series A convertible preferred stock (unaudited).....			113,429	142,000	
Issuance of Series B mandatorily redeemable preferred stock to maintain ownership percentage (Note 10) (unaudited).....	15,468				
Cancellation of unvested portion of restricted stock upon employee termination (unaudited).....					(375)
Employee option exercise (unaudited).....					625
Accretion of Series B mandatorily redeemable preferred stock to redemption value (unaudited).....		10,000			
Net loss (unaudited).....					
BALANCE AT JUNE 30, 1996 (UNAUDITED).....	1,815,468	\$6,898,000	10,624,429	\$2,628,000	523,047

STOCKHOLDERS' EQUITY (DEFICIT)

	COMMON STOCK PAR VALUE	ADDITIONAL PAID-IN CAPITAL	ACCUMULATED DEFICIT	TOTAL STOCKHOLDERS' EQUITY (DEFICIT)
Capital contributions from ArQule Partners, L.P. (Note 1).....		\$2,236,000		\$ 2,236,000
Net loss.....			\$(1,465,000)	(1,465,000)
Issuance of common stock on December 30, 1993 in exchange for partnership assets and liabilities.....	\$ --			--
BALANCE AT DECEMBER 31, 1993.....	--	2,236,000	(1,465,000)	771,000
Capital contribution from ArQule Partners, L.P. (Note 1).....		2,100,000		2,100,000
3,333.33 for 1 stock split effected in the form of a stock dividend.....	50,000	(50,000)		--
Cancellation of common stock.....	(1,000)	1,000		--
Issuance of Series A convertible preferred stock in exchange for common stock.....	(43,000)	(43,000)		--
Cancellation of unvested portion of restricted stock upon employee termination.....	--			--
Issuance of common stock purchase warrants under bridge financing.....		132,000		132,000
Net loss.....			(4,206,000)	(4,206,000)
BALANCE AT DECEMBER 31, 1994.....	6,000	4,376,000	(5,671,000)	(1,203,000)
Employee restricted stock purchases.....	--	1,000		1,000
Issuance of common stock purchase warrants under bridge financing.....		57,000		57,000
Cancellation of unvested portion of restricted stock upon employee termination.....	(1,000)	1,000		--
Conversion of bridge notes into Series A convertible preferred stock.....				2,400,000
Issuance of Series B mandatorily redeemable convertible preferred stock, net of issuance costs of \$115,000.....				
Accretion of Series B mandatorily redeemable preferred stock to redemption value.....			(3,000)	(3,000)
Net loss.....			(2,252,000)	(2,252,000)
BALANCE AT DECEMBER 31, 1995.....	5,000	4,435,000	(7,926,000)	(1,000,000)
Conversion of interest on bridge notes to Series A convertible preferred stock (unaudited).....				142,000
Issuance of Series B mandatorily redeemable preferred stock to maintain ownership percentage (Note 10) (unaudited).....				
Cancellation of unvested portion of restricted stock upon employee termination (unaudited).....	--			--
Employee option exercise (unaudited).....	--			--
Accretion of Series B mandatorily redeemable preferred stock to redemption value (unaudited).....			(10,000)	(10,000)
Net loss (unaudited).....			(754,000)	(754,000)
BALANCE AT JUNE 30, 1996 (UNAUDITED).....	\$ 5,000	\$4,435,000	\$(8,690,000)	\$(1,622,000)

The accompanying notes are an integral part of these financial statements.

STATEMENT OF CASH FLOWS

Increase (Decrease) in Cash and Cash Equivalents

	PERIOD FROM INCEPTION (MAY 6, 1993) THROUGH DECEMBER 31, 1993		YEAR ENDED DECEMBER 31,		SIX MONTHS ENDED JUNE 30,	
	1993	1994	1995	1995	1996	
						(UNAUDITED)
Cash flows from operating activities:						
Net loss.....	\$ (1,465,000)	\$ (4,206,000)	\$ (2,252,000)	\$ (1,069,000)	\$ (754,000)	
Adjustment to reconcile net loss to net cash (used in) provided by operating activities:						
Depreciation and amortization.....	19,000	189,000	506,000	224,000	434,000	
Amortization of debt discount.....	--	25,000	164,000	137,000	--	
(Increase) decrease in prepaid expenses and other current assets.....	(70,000)	41,000	(44,000)	6,000	43,000	
Increase in other assets.....	(14,000)	--	(35,000)	--	--	
Increase in notes receivable from related party.....	(63,000)	--	(120,000)	--	--	
Increase in accounts payable and accrued expenses.....	287,000	340,000	141,000	49,000	550,000	
Increase in deferred revenue.....	--	--	2,108,000	2,716,000	1,025,000	
Net cash (used in) provided by operating activities.....	(1,306,000)	(3,611,000)	468,000	2,063,000	1,298,000	
Cash flows from investing activities:						
Purchases of marketable securities.....	--	--	(9,052,000)	--	--	
Proceeds from sale or maturity of marketable securities.....	--	--	4,250,000	--	1,002,000	
Decrease (increase) in restricted cash.....	(100,000)	(188,000)	188,000	(14,000)	--	
Additions to property and equipment.....	(201,000)	(168,000)	(495,000)	(228,000)	(2,437,000)	
Net cash used in investing activities.....	(301,000)	(356,000)	(5,109,000)	(242,000)	(1,435,000)	
Cash flows from financing activities:						
Proceeds from bridge financing -- related party.....	--	1,700,000	700,000	700,000	--	
Principal payments of capital lease obligations.....	(34,000)	(110,000)	(381,000)	(161,000)	(285,000)	
Proceeds from issuance of mandatorily redeemable convertible preferred stock, net.....	--	--	6,885,000	--	--	
Proceeds from issuance of common stock.....	--	--	1,000	--	--	
Capital contribution from ArQule Partners, L.P.....	2,236,000	2,100,000	--	--	--	
Proceeds from sale-leaseback transactions.....	--	107,000	--	--	--	
Net cash provided by (used in) financing activities.....	2,202,000	3,797,000	7,205,000	539,000	(285,000)	
Net increase (decrease) in cash and cash equivalents.....	595,000	(170,000)	2,564,000	2,360,000	(422,000)	
Cash and cash equivalents, beginning of period...	--	595,000	425,000	425,000	2,989,000	
Cash and cash equivalents, end of period.....	\$ 595,000	\$ 425,000	\$ 2,989,000	\$ 2,785,000	\$ 2,567,000	

SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:

Capital lease obligations of \$1,122,000 and \$503,000, \$935,000 and \$512,000 were incurred in six months ended June 30, 1996 and in the years ended December 31, 1995, 1994 and 1993, respectively, when the Company entered into leases for various machinery and equipment, furniture and fixtures, and leasehold improvements.

During 1995, the Company converted \$2,400,000 of bridge loans into 1,920,000 shares of Series A convertible preferred stock (Note 8). In addition, during 1996, the Company converted \$142,000 of interest relating to the bridge loans into 113,429 shares of Series A convertible preferred stock.

In addition to cash of \$595,000, the Company received certain assets, liabilities and patented technology upon the issuance of its common stock in connection with the formation of the Company (Note 1).

SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:

During 1995 and 1994, the Company paid approximately \$254,000 and \$98,000, respectively, for interest.

The accompanying notes are an integral part of these financial statements.

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS

1. NATURE OF OPERATIONS AND ORGANIZATION

ArQule, Inc. (the "Company") is engaged in the discovery, development and production of novel chemical compounds for the pharmaceutical and biotechnology industries. Its operations are focused on the integration of combinatorial chemistry and structure-guided rational drug design technologies and their application for producing such compounds.

In May 1993 and in connection with the formation of ArQule Partners, L.P. (the "Partnership"), Legomer Technologies, Inc. ("LTI"), formerly Molecular Recognition Technologies, Inc., a company owned by the two founding limited partners in the Partnership, contributed to the Partnership all rights and interests in certain LTI patented technology (the "Technology") in exchange for a 0.5% general partner ownership position. The Company was legally incorporated on December 30, 1993 to carry on the operations of the Partnership. Immediately following the incorporation of the Company, the Partnership transferred substantially all of its assets, liabilities and patented technology (the "Operating Assets"), having an aggregate net book value of \$771,000, to the Company in exchange for 1,500 shares of the Company's \$0.01 par value common stock, representing all of the Company's then outstanding common stock. Because of the related party nature of these transactions, the Operating Assets and the Technology transfers have been accounted for as transfers of assets between entities under common control. Accordingly, the accompanying financial statements include the assets, liabilities and results of operations of the Company at historical amounts as if the transfers occurred at the inception of the Partnership. The Company is currently a majority-owned subsidiary of the Partnership.

Amounts which reflect the funding of the Partnership's operations prior to the conversion of certain shares of the Company's common stock into Series A preferred stock (Note 10), totaling \$2,236,000 and \$2,100,000 of cash for the years ended December 31, 1993 and 1994, respectively, are reflected as paid-in capital in the accompanying balance sheet and as capital contributed by ArQule Partners L.P. in the statements of changes in redeemable preferred stock and stockholders' equity (deficit) and of cash flows.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Significant accounting policies followed in the preparation of these financial statements are as follows:

Cash Equivalents, Marketable Securities and Restricted Cash

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company invests its available cash primarily in money market mutual funds and U.S. government debt securities which have strong credit ratings. These investments are subject to minimal credit and market risks. The Company specifically identifies securities for purposes of determining gains and losses on the sale of cash equivalents and short-term investments. At December 31, 1995 and 1994, the Company has classified its investments as available-for-sale as defined in Statement of Financial Accounting Standards ("SFAS") No. 115.

Restricted cash represents cash equivalents and time deposits held at financial institutions as collateral on certain lease agreements (Note 13).

Fair Value of Financial Instruments

In 1995, the Company adopted SFAS No. 107, "Disclosures about the Fair Value of Financial Instruments," which requires the disclosure of the fair value of financial instruments. At December 31, 1995 the Company's financial instruments consist of cash, cash equivalents, marketable securities,

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

restricted cash, notes receivable from related party, accounts payable and accrued expenses and mandatorily redeemable convertible preferred stock. The carrying amount of these instruments approximate their fair values.

Property and Equipment

Property and equipment are recorded at cost and depreciated using the straight-line method over their estimated useful lives. Assets under capital leases and leasehold improvements are amortized over the shorter of their estimated useful lives or the term of the respective leases by use of the straight-line method. Maintenance and repair costs are expensed as incurred.

Revenue Recognition

Compound development revenue relates to revenue from significant collaborative agreements (Note 3) and from licensing of compound arrays. Revenue from collaborative agreements relates to the delivery of compounds and to compound development work and is recognized using the percentage of completion method based on the ratio that the effort expended to date bears to the estimated total effort at completion. Payments received under these arrangements prior to the completion of the related work are recorded as deferred revenue. Revenue from licensing of compound arrays with no additional obligations is recognized upon delivery of the compound array. License option fees represent payments made to the Company for a right to evaluate and negotiate the terms of potential licensing arrangement. Payments received for license option fees are recognized as the options are granted as such fees are nonrefundable and the Company has no further obligations.

Cost of Revenue

Cost of revenue represents the actual costs incurred in connection with performance pursuant to collaborative agreements and the costs incurred to produce compound arrays. These costs consist primarily of payroll and payroll-related costs, supplies and overhead expenses.

Unaudited Pro Forma Net Loss Per Share

Pro forma net loss per share is determined by dividing the net loss by the weighted average number of shares of common stock and common stock equivalents outstanding during the period, assuming the conversion of all convertible preferred stock which will occur upon the closing of a qualified public offering of the Company's common stock as described in Note 10.

Common stock equivalents, although anti-dilutive, issued at prices below the offering price per share during the twelve month period preceding the initial filing of the Registration Statement have been included in the calculation of unaudited pro forma net loss per share using the treasury stock method and an assumed initial public offering price of \$12.00 per share as if outstanding since the beginning of each period presented.

Historical net loss per share has not been presented as the Series A convertible preferred stock would have been omitted from the weighted average shares outstanding as it is anti-dilutive and was issued more than twelve months prior to the anticipated public offering.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial

statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Interim Financial Data (Unaudited)

The interim financial data as of June 30, 1996 and for the six months ended June 30, 1995 and 1996, included in the accompanying financial statements are unaudited; however, in the opinion of the Company, the interim financial data include all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the results for the interim periods. The interim financial data are not necessarily indicative of the results of operations for a full year.

New Accounting Pronouncements

In March 1995, the Financial Accounting Standards Board ("FASB") issued SFAS No. 121, "Accounting for the Impairment of Long-lived Assets and for Long-lived Assets to be Disposed Of ". In October 1995, the FASB issued SFAS No. 123, "Accounting for Stock-Based Compensation." Both SFAS No. 121 and No. 123 are effective for the Company for the year ending December 31, 1996. The Company has adopted these standards as required, and has adopted SFAS No. 123 through disclosure only. The adoption of these statements is not expected to have a material effect on the Company's financial position, results of operations or cash flows.

3. SIGNIFICANT AGREEMENTS

In 1995, the Company entered into a Research, Development and License Agreement (the "Agreement") and a Stock Purchase Agreement (Note 10) with Solvay Duphar B.V. ("Solvay"). Under the terms of the Agreement, the Company will provide a certain number of compounds per year, and Solvay has been granted the right to screen these compounds to identify compounds which exhibit biological activity against targets (an "Active Compound"). Solvay has the right to enter into an exclusive, worldwide license for any Active Compound identified. In exchange, the Company receives milestone payments during drug development and royalty payments based on sales of the product. Solvay has a right which expires on December 31, 1997 to license certain of the Company's technologies on a nonexclusive basis for internal use only. The initial term of the Agreement is five years, and Solvay will make payments totaling \$3.5 million per contract year for access to the compounds and for the Company's research work of which \$600,000 was paid by December 31, 1995. At December 31, 1995, deferred revenue related to this agreement totaled \$100,000, and \$500,000 was included in compound development revenue--related party for the year ended December 31, 1995.

In 1995, the Company entered into a Research & Development and License Agreement with Abbott Laboratories ("Abbott"). Under this agreement, the Company will conduct research and development activities for Abbott for two years (the "Research Term") with an option to extend the agreement for up to an additional three years for additional payments. The Company will also provide a certain number of compounds per year, and Abbott has been granted the right to screen these compounds or to use them in research activities pursuant to the agreement. Abbott has the right to enter into an exclusive, worldwide license for a number of compounds or derivatives developed under the agreement. In exchange, the Company receives milestone payments during drug development and royalty payments based on sales of the product. Pursuant to the agreement, Abbott has made payments totaling \$3.2 million for access to the compounds and for the Company's research work of which \$1,192,000 was included in compound development revenue in 1995 and \$2,008,000 was included in deferred revenue at December 31, 1995.

In 1995, the Company entered into an Option Agreement and a Research and Development Agreement with Pharmacia Biotech AB ("Pharmacia"), a subsidiary of Pharmacia & Upjohn, Inc. Under the Option Agreement, a nonrefundable fee of \$1,000,000 was paid by Pharmacia in exchange for a six month option to license certain technology rights. This amount was included in license option

fee revenue. Upon exercise of an option by Pharmacia, the two parties will enter into a license agreement which would include initial licensing fees based on the technology licensed and royalty and milestone payments based on Pharmacia's related net product sales. Under the Research and Development Agreement, Pharmacia paid \$500,000 for certain research and development activities, which was included in compound development revenue. Subsequent to December 31, 1995 and pursuant to the terms of the Option Agreement, Pharmacia elected to extend the option for certain technologies by funding an additional research project under the Research and Development Agreement.

On September 13, 1996, the Company entered into a Research and License Agreement with Roche Bioscience, a division of Syntex (U.S.A.) Inc. and an indirect subsidiary of Roche Holding Ltd., pursuant to which the Company will synthesize a certain number of Directed Array sets from compounds provided to the Company by Roche Bioscience or developed by the Company. Roche Bioscience has the right to enter into an exclusive, worldwide license for any Active Compounds identified. Pursuant to the agreement, the Company will receive research payments, milestone payments during drug development, and royalty payments based on sales of the product. The initial term of the agreement is three years. Roche Bioscience will make payments of approximately \$12.1 million over the initial term for development of and access to Directed Array sets, as determined jointly by the Company and Roche Bioscience. However, the agreement is subject to an early termination provision such that it may be terminated at the end of the second year, in which case the Company will receive payments of approximately \$8.4 million. Roche Bioscience is also obligated to make additional payments upon the achievement of certain milestones and to pay royalties on sales of drugs that may result from the relationship.

Under the terms of material transfer agreements with biotechnology companies (the "collaborators"), the Company has granted the collaborator the nonexclusive, royalty-free license to test certain compound arrays supplied by the Company. Upon identification of an active compound, the Company will negotiate a joint drug development program with the collaborator to develop the compound, provided the Company has not previously licensed the compound. Under the collaboration agreements executed in 1996 in connection with these joint drug development programs, the Company and the collaborator will each bear the costs and expenses of their respective activities. Proceeds received on sales or a third party license of the jointly developed compound will first reimburse development costs incurred by each party on a pro rata basis. After all such reimbursements have been made, the remaining proceeds will be split evenly between the parties.

4. CASH EQUIVALENTS AND MARKETABLE SECURITIES

Following is a summary of the fair market value of available-for-sale securities, by balance sheet classification, as of December 31, 1994 and 1995:

	DECEMBER 31,	
	1994	1995
	----	----
Cash equivalents		
Money market funds.....	\$9,000	\$2,688,000
Marketable securities		
U.S. government obligations.....	--	4,802,000
	-----	-----
	\$9,000	\$7,490,000
	=====	=====

At December 31, 1994 and 1995, marketable securities are carried at fair market value, which approximates amortized cost. Available-for-sale securities classified as marketable securities with fair market values of \$1,016,000 and \$3,786,000 have contractual maturities of between one and five years and between five and ten years, respectively. All of the Company's marketable securities are classified as current at December 31, 1995 as these funds are highly liquid and are available to meet working capital needs and to fund current operations. Gross unrealized gains and losses at December 31, 1994 and 1995 and realized gains and losses on sales of securities for the year ended December 31, 1994 and 1995 were not significant.

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

5. PROPERTY AND EQUIPMENT

Property and equipment consist of the following:

	ESTIMATED USEFUL LIFE (YEARS)	DECEMBER 31,	
		1994	1995
		-----	-----
Machinery and equipment.....	3-7	\$1,056,000	\$1,839,000
Leasehold improvements.....	5	585,000	656,000
Furniture and fixtures.....	7	52,000	72,000
Construction-in-progress.....	--	--	124,000
		-----	-----
		1,693,000	2,691,000
Less -- Accumulated depreciation and amortization...		191,000	697,000
		-----	-----
		\$1,502,000	\$1,994,000
		=====	=====

Assets held under capital leases consisted of \$935,000 and \$1,438,000 of machinery and equipment at December 31, 1994 and 1995, respectively, and \$485,000 of leasehold improvements at December 31, 1994 and 1995. Accumulated amortization of these assets totaled \$173,000 and \$366,000 at December 31, 1994 and 1995, respectively. For the years ended December 31, 1993, 1994 and 1995, amortization expense related to assets held under capital lease obligations was \$10,000, \$163,000 and \$193,000, respectively.

6. NOTES RECEIVABLE FROM RELATED PARTY

The Company has a note receivable in the amount of \$63,000 from an officer of the Company at December 31, 1994 and 1995. Under the terms of the note, interest accrues on the unpaid principal and interest at the lowest applicable federal rate of interest as published by the Internal Revenue Service (5.9% at December 31, 1995). Principal and accrued interest are due in full on November 3, 1996. At December 31, 1994 and 1995, interest due on the note was \$3,000 and \$5,000, respectively, and is included in prepaid expenses and other current assets.

The Company also has outstanding at December 31, 1995 a note receivable in the amount of \$120,000 from an officer of the Company which is secured by the officer's beneficial interest in 96,000 shares of Series A preferred stock of the Company. Under the terms of the note, interest accrues on the unpaid principal and interest at the lowest applicable federal rate of interest as published by the Internal Revenue Service (5.9% at December 31, 1995). Principal and accrued interest will be paid in four equal installments on November 2 of each year commencing on November 2, 1996. The amount of the principal due and payable on any installment date will be forgiven so long as the officer is employed by the Company on the installment date. At December 31, 1995 interest receivable relating to this note was \$1,000 and is included in prepaid expenses and other current assets.

7. ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses include the following:

DECEMBER 31,	
1994	1995
----	----

Accounts payable.....	\$420,000	\$369,000
Accrued professional fees.....	123,000	176,000
Accrued interest expense.....	16,000	142,000
Other accrued expenses.....	68,000	82,000
	-----	-----
	\$627,000	\$769,000
	=====	=====

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

8. BRIDGE FINANCING -- RELATED PARTY

During 1994 and 1995, the Company received \$1,700,000 and \$700,000, respectively under bridge financing arrangements with certain stockholders. In connection with this financing, the Company issued eighteen unsecured promissory notes at interest rates ranging from 5.86% to 7.43% per annum. On November 2, 1995, the Company and the stockholders agreed to convert the principal of the notes into 1,920,000 shares of Series A convertible preferred stock. At December 31, 1994 and 1995, interest payable relating to these bridge financings is \$16,000 and \$142,000, respectively. In April 1996, the Company and the stockholders converted the interest payable into an additional 113,429 shares of Series A convertible preferred stock.

As partial consideration for the promissory notes, the Company issued warrants to purchase 240,000 shares of the Company's \$0.01 par value common stock. The warrants are exercisable at \$0.25 per share (including by means of a cashless exercise) which was equal to or exceeded the estimated fair value of the Company's common stock, as determined by the Board of Directors, throughout the period the warrants were issued. The warrants are currently exercisable and expire on the earlier of various dates through December 31, 1999 or the effective date of an initial public offering under the Securities Act of 1933.

The proceeds from the bridge financings were allocated to the notes and to the warrants based on management's estimate of their relative fair values. This resulted in \$132,000 and \$57,000 being ascribed to the warrants in 1994 and 1995, respectively, which was recorded as additional paid-in-capital and as a discount to the face value of the notes. The discount was amortized over the period from issuance to conversion into Series A convertible preferred stock. The amortization of debt discount totaled \$25,000 and \$164,000 for the years ended December 31, 1994 and 1995, respectively, and is included in interest expense.

9. EQUITY INCENTIVE PLAN

During 1994, the Board of Directors approved the 1994 Amended and Restated Equity Incentive Plan (the "Equity Incentive Plan"). During 1995 and 1996, the Board of Directors approved amendments to increase the number of shares of common stock available for awards under the Equity Incentive Plan to 1,104,500 and 2,600,000, respectively. All shares will be awarded at the discretion of a Committee of the Board of Directors (the "Committee") in a variety of stock-based forms including stock options and restricted stock. Pursuant to the Equity Incentive Plan, incentive stock options may not be granted at less than the fair market value of the Company's common stock at the date of the grant, and the option term may not exceed ten years. For holders of 10% or more of the Company's voting stock, options may not be granted at less than 110% of the fair market value of the common stock at the date of the grant, and the option term may not exceed five years. Stock appreciation rights granted in tandem with an option shall have an exercise price not less than the exercise price of the related option.

Subject to the restrictions above, the Committee is authorized to designate the options, awards, and purchases under the Equity Incentive Plan, the number of shares covered by each option, award and purchase, and the related terms, exercise dates, prices and methods of payment. In addition, for purposes of determining the recipients' compensation relating to these grants, the fair value for the awards is determined by the Board of Directors at the date at which they are granted.

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

Activity for the period from inception of the Equity Incentive Plan through June 30, 1996 was as follows:

INCENTIVE STOCK OPTIONS -----	NUMBER OF SHARES -----	OPTION PRICE PER SHARE -----
Granted.....	2,500	\$0.02
Outstanding at December 31, 1994.....	2,500	\$0.02
Granted.....	298,500	\$0.02 - \$0.80
Outstanding at December 31, 1995.....	301,000	\$0.02 - \$0.80
Granted.....	837,420	\$0.80 - \$6.00
Exercised.....	(625)	\$0.02
Cancelled.....	(1,875)	\$0.02
Outstanding at June 30, 1996.....	1,135,920	\$0.02 - \$6.00
Exercisable at December 31, 1995.....	625	

At December 31, 1995, restricted common stock purchased pursuant to the Equity Incentive Plan totaled 522,797 shares (Note 11), and there were 280,703 shares available for future grant under the Equity Incentive Plan.

On August 14, 1996, the Board of Directors approved, subject to stockholder approval, the 1996 Director Stock Option Plan (the "1996 Director Plan") for non-employee directors. Under this plan, eligible directors are automatically granted once a year, at the annual meeting of stockholders of the Company, options to purchase 3,500 shares of common stock which are exercisable on the date of grant. Upon adoption of the plan and upon election of an eligible director, options to purchase 7,500 shares of common stock will be granted which will become exercisable in three equal annual installments commencing on the date of the Company's next annual stockholders' meeting held after the date of grant. All options granted pursuant the 1996 Director Plan have terms of ten years with exercise prices equal to fair market value on the date of grant. A maximum of 125,000 shares of common stock of the Company is reserved for issuance in accordance with the terms of this plan.

Stock Purchase Plan

On August 14, 1996, the Board of Directors approved, subject to stockholder approval, the 1996 Employee Stock Purchase Plan (the "Purchase Plan"). This plan enables eligible employees to exercise rights to purchase the Company's common stock at 85% of the fair market value of the stock on the date the right was granted or the date the right is exercised, whichever is lower. Rights to purchase shares under the Purchase Plan are granted by the Board of Directors. The rights are exercisable during a period determined by the Board of Directors; however, in no event will the period be longer than twenty-seven months. The Purchase Plan is available to substantially all employees, subject to certain limitations. The Company has reserved 120,000 shares of common stock for purchases under the Purchase Plan.

10. MANDATORILY REDEEMABLE CONVERTIBLE PREFERRED STOCK AND CONVERTIBLE PREFERRED STOCK

On November 18, 1994, the Partnership (the sole stockholder of the Company as of that date) exchanged 563,972 shares of common stock of the Company for Partnership interests held by certain employees and consultants. The Partnership also contributed 140,528 shares of common stock to the Company for future issuance pursuant to the Equity Incentive Plan (Note 9). The Company

ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

immediately retired these contributed shares and reserved 140,528 shares of common stock for issuance pursuant to the Equity Incentive Plan. The stockholders of the Company approved the issuance of 8,591,000 shares of Series A convertible preferred stock to the Partnership in exchange for the remaining 4,295,500 shares of common stock held by the Partnership. Upon the exchange of preferred stock, the Company retired the related shares of common stock.

On November 1, 1995, the stockholders approved an amendment to the Company's Certificate of Incorporation to increase the number of designated Series A preferred shares from 10,000,000 to 10,511,000 and to approve the designation of 1,800,000 shares of Series B preferred stock. In February 1996, the stockholders approved a further increase in the number of designated Series A and Series B preferred shares to 10,624,429 and 1,815,468, respectively.

On November 5, 1995, as part of a collaborative agreement (Note 3), the Company sold to Solvay 1,800,000 shares of Series B preferred stock which resulted in net proceeds to the Company of \$6,885,000. In April 1996, the Company issued to Solvay an additional 15,468 shares of Series B preferred stock in connection with the conversion of the bridge financing interest into Series A preferred stock (Note 8) to maintain the original, agreed-upon ownership percentage.

Convertible preferred stock has the following characteristics:

Conversion Rights

The preferred stock is convertible, at the option of the holder, into common stock of the Company based upon a formula which currently would result in an exchange of one share of common stock for every two shares of preferred stock converted. The preferred stock will automatically convert into common stock upon the closing of an initial public offering, for which net proceeds equal or exceed \$10,000,000 at a price per share equal to or greater than the original purchase price per share of the related preferred stock.

Dividend Rights

When and if declared by the Board of Directors, and prior to any payment of dividends to common stockholders, the Company shall pay noncumulative, annual cash dividends of \$0.07 and \$0.27 per share to the holders of Series A preferred stock and Series B preferred stock, respectively. In the event of a declaration and payment of dividends on common stock, dividends on the preferred stock (determined by the number of common shares into which the preferred shares are convertible) are payable in an amount equal to or greater than the per share amount of the dividend to common stockholders.

Voting Rights

Holders of the preferred stock are entitled to vote upon any matter submitted to the stockholders for a vote. Each share of preferred stock shall have one vote for each full share of common stock into which the respective share of preferred stock would be convertible on the record date for the vote.

Liquidation Rights

In the event of any liquidation, dissolution or winding up of the affairs of the Company, the holders of the Series A preferred shares are entitled to receive, prior to and in preference to the holders of Series B preferred stock and the holders of common stock, an amount equal to \$0.89 per share, plus any declared but unpaid dividends. After all such payments have been made, the holders of the outstanding Series B preferred shares are entitled to receive, prior to and in preference to the holders of common stock, an amount equal to \$3.89 per share, plus any declared but unpaid dividend.

Redemption Rights

Each holder of shares of Series B preferred stock shall have the right to cause the Company, at any time on or after November 2, 2001, to redeem the Series B preferred stock at a price equal to \$3.89 per share. The difference between the net issuance price and the redemption price is being accreted by a charge to accumulated deficit. The Series A preferred stock is not redeemable.

Protection of Series B Preferred Stock

The Company is not allowed to authorize the increase or decrease of the total number of authorized shares of Series B preferred stock or issue additional shares of Series B preferred stock without first obtaining the approval of the majority of the Series B preferred stockholders. In addition, the Company must first obtain approval of the majority of Series B preferred stockholders to amend the Articles of Incorporation of the Company if such amendment would adversely affect any of the rights, preferences or privileges of shares of Series B preferred stock, or to redeem, purchase or otherwise acquire shares of Series A preferred stock or common stock, excluding the repurchase of shares of common stock from employees, officers, directors or consultants.

Unaudited Pro Forma Balance Sheet

Upon the closing date of the Company's initial public offering, all of the outstanding shares of Series A and Series B preferred stock will automatically convert into 5,312,214 and 907,734 shares of common stock, respectively. In addition, 234,992 shares of common stock will be issued upon the cashless exercise of the outstanding warrants (Note 8), based on an assumed initial public offering price of \$12.00 per share, which will occur immediately prior to the effectiveness of the initial public offering. Such conversion and exercise have been reflected in the unaudited pro forma balance sheet as of June 30, 1996.

11. COMMON STOCK

On August 14, 1996, the Board of Directors approved a 1 for 2 reverse stock split on the common stock of the Company. The reverse stock split is subject to stockholder approval and the filing of an amended Certificate of Incorporation which is expected to occur on or before the effective date of the registration statement related to the Company's contemplated initial public offering. Accordingly, all share and per share data have been restated to give retroactive effect to the stock split for all periods presented.

On October 17, 1994 and November 1, 1995, the stockholders approved amendments to the Company's Certificate of Incorporation to increase the number of authorized common shares to 15,000,000 and 20,000,000, respectively. On October 17, 1994, the Board of Directors also approved a 3,333.33 for 1 stock split of the Company's common stock.

At December 31, 1995, the Company has 6,977,203 shares of its common stock reserved for issuance upon conversion of the preferred stock and exercise of warrants and options.

Stock Restriction Agreements

At December 31, 1995, the Company had outstanding 522,797 shares of common stock issued pursuant to the Equity Incentive Plan (Note 9) which are subject to stock restriction agreements whereby the stockholder automatically forfeits to the Company the unvested portion of shares of common stock in the event of termination of their employment with the Company. All such forfeited shares shall immediately be retired by the Company. Shares subject to this agreement vest over a four year period, either monthly or annually. At December 31, 1995, the aggregate number of unvested common shares is 219,356.

Each stock restriction agreement terminates at the election of the Company on the earlier of (i) the date upon which an initial public offering of shares of common stock, with a price of at least \$5.00 per share and net proceeds to the Company of at least \$10,000,000, becomes effective or (ii) the closing of an acquisition, consolidation, or merger of the Company or a sale or transfer of all or substantially all of the Company's assets.

12. INCOME TAXES

The benefit (provision) for income taxes was as follows:

	YEAR ENDED DECEMBER 31,	
	1994	1995
	----	----
Deferred tax benefit:		
Federal.....	\$ 1,420,000	\$ 794,000
State.....	338,000	246,000
	-----	-----
	1,758,000	1,040,000
	-----	-----
Deferred tax asset valuation allowance.....	(1,758,000)	(1,040,000)
	-----	-----
	\$ --	\$ --
	=====	=====

The Company's deferred tax assets consist of the following:

	DECEMBER 31,	
	1994	1995
	----	----
Preoperating costs capitalized for tax purposes.....	\$ 496,000	\$ 416,000
Net operating loss carryforwards.....	1,667,000	2,590,000
Tax credit carryforwards.....	139,000	272,000
Book depreciation in excess of tax.....	42,000	106,000
	-----	-----
Gross deferred tax assets.....	2,344,000	3,384,000
Deferred tax asset valuation allowance.....	(2,344,000)	(3,384,000)
	-----	-----
	\$ --	\$ --
	=====	=====

The Company has provided a full valuation allowance for the deferred tax assets as the realization of these future benefits is not sufficiently assured as of the end of each related year. If the Company achieves profitability, the deferred tax assets will be available to offset future income tax liabilities and expense.

At December 31, 1995, the Company has federal net operating loss carryforwards and tax credit carryforwards available to reduce future taxable income and tax liabilities, respectively, which expire as follows:

YEAR OF EXPIRATION	NET OPERATING LOSS CARRYFORWARDS	RESEARCH AND DEVELOPMENT TAX CREDIT CARRYFORWARDS
-----	-----	-----
2009.....	\$4,320,000	\$ 84,000
2010.....	2,181,000	52,000
	-----	-----
	\$6,501,000	\$136,000
	=====	=====

Under the Internal Revenue Code, certain substantial changes in the Company's ownership could result in an annual limitation on the amount of net operating loss and tax credit carryforwards which can be utilized in future years.

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ARQUE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

A reconciliation between the amounts of reported income tax benefit and the amount determined by applying the U.S. federal statutory rate of 35% for 1994 and 1995 to pre-tax loss is as follows:

	YEAR ENDED DECEMBER 31,	
	1994	1995
	----	----
Loss at statutory rate.....	\$ 1,472,000	\$ 788,000
State tax benefit, net of federal benefit.....	252,000	135,000
Research and investment tax credit.....	139,000	133,000
Other.....	(105,000)	(16,000)
	-----	-----
	1,758,000	1,040,000
Increase in valuation allowance.....	(1,758,000)	(1,040,000)
	-----	-----
	\$ --	\$ --
	=====	=====

13. COMMITMENTS AND CONTINGENCY

LEASES

The Company leases office space and equipment under noncancelable operating and capital leases. The future minimum lease commitments under these leases are as follows:

YEAR ENDING DECEMBER 31,	OPERATING LEASES	CAPITAL LEASES
- - - - -	-----	-----
1996.....	\$ 293,000	\$ 631,000
1997.....	288,000	620,000
1998.....	289,000	334,000
1999.....	288,000	37,000
2000.....	144,000	--
	-----	-----
Total minimum lease payments.....	\$1,302,000	1,622,000
	=====	
Less -- Amount representing interest.....		197,000

Present value of minimum lease payments.....		\$1,425,000
		=====

The Company has a lease line agreement with an unaffiliated third party (the "Lessor") for \$2,000,000 of which approximately \$787,000 was available for future leases at December 31, 1995. Subsequent to December 31, 1995, the Lessor approved an increase in the lease line limit to \$5,000,000. The term for each lease under the agreement is forty-two months, commencing on the purchase date of the asset, and the lease bears interest at a rate determined by the Lessor at each transaction date. The leasing arrangement was collateralized by cash equivalents totaling \$188,000 at December 31, 1994. This collateral was released in 1995 by the Lessor. During 1994, the Company sold and leased back approximately \$107,000 in machinery and equipment, furniture and fixtures and

office equipment from the Lessor.

Rent expense under noncancelable operating leases was approximately \$91,000 and \$163,000 for the years ended December 31, 1994 and 1995, respectively.

LETTER OF CREDIT

In connection with a capital lease obligation for certain leasehold improvements, the Company is required to maintain a \$100,000 letter of credit with a bank. Under the terms of the lease obligation, the \$100,000 letter of credit is to be available until September 30, 1996, at which point the required amount will be reduced to \$50,000 through September 30, 1998. The letter of credit is collateralized by a \$100,000 certificate of deposit held by the bank (Note 2).

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ARQULE, INC.

NOTES TO FINANCIAL STATEMENTS -- (CONTINUED)

EMPLOYMENT AGREEMENTS

The Company entered into an employment agreement with an officer who is also a member of the board of directors. This agreement provides that if his employment is terminated without cause, the officer is entitled to receive up to six months' salary. The Company also entered into an employment agreement with an officer. This agreement provides that if his employment is terminated without cause during the first year of the agreement, the officer is entitled to receive up to six months' salary.

CONTINGENCY

In October 1996, the Company received a letter from two individuals who have asserted that they are entitled to compensation from certain of the Company's stockholders and/or the Company equal to approximately five percent of the equity interest in the Company. The Company believes that there are meritorious defenses against such claims and intends to contest them vigorously; however, they are currently unable to estimate the outcome of this matter, including the range of potential loss, if any.

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[GRAPH]

A three-dimensional structure of ArQule's HIV-1 Protease Inhibitor, bound in the enzyme active site, and developed utilizing ArQule's Combinatorial Drug Design and Development Platform.

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NO DEALER, SALESPERSON OR OTHER PERSON HAS BEEN AUTHORIZED TO GIVE ANY INFORMATION OR TO MAKE ANY REPRESENTATIONS OTHER THAN THOSE CONTAINED IN THIS PROSPECTUS AND, IF GIVEN OR MADE, SUCH INFORMATION OR REPRESENTATIONS MUST NOT BE RELIED UPON AS HAVING BEEN AUTHORIZED BY THE COMPANY OR THE UNDERWRITERS. THIS PROSPECTUS DOES NOT CONSTITUTE AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY THE COMMON STOCK TO ANY PERSON IN ANY JURISDICTION IN WHICH SUCH OFFER OR SOLICITATION WOULD BE UNLAWFUL OR TO ANY PERSON TO WHOM IT IS UNLAWFUL. NEITHER THE DELIVERY OF THIS PROSPECTUS NOR ANY OFFER OR SALE MADE HEREUNDER SHALL, UNDER ANY CIRCUMSTANCES, CREATE ANY IMPLICATION THAT THERE HAS BEEN NO CHANGE IN THE AFFAIRS OF THE COMPANY OR THAT THE INFORMATION CONTAINED HEREIN IS

CORRECT AS OF ANY TIME SUBSEQUENT TO THE DATE HEREOF.

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UNTIL _____, 1996 (25 DAYS AFTER THE DATE OF THIS PROSPECTUS), ALL DEALERS EFFECTING TRANSACTIONS IN THE COMMON STOCK, WHETHER OR NOT PARTICIPATING IN THIS DISTRIBUTION, MAY BE REQUIRED TO DELIVER A PROSPECTUS. THIS IS IN ADDITION TO THE OBLIGATIONS OF DEALERS TO DELIVER A PROSPECTUS WHEN ACTING AS UNDERWRITERS AND WITH RESPECT TO THEIR UNSOLD ALLOTMENTS OR SUBSCRIPTIONS.

=====

2,000,000 SHARES

ARQULE, INC.

[ARQULE LOGO]

COMMON STOCK

PROSPECTUS

HAMBRECHT & QUIST

OPPENHEIMER & CO., INC.

VECTOR SECURITIES INTERNATIONAL,
INC.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The expenses to be borne by the Company in connection with this offering are as follows:

SEC registration fee.....	\$ 10,311
Nasdaq listing fee.....	39,942
NASD filing fee.....	3,490
Blue Sky fees and expenses.....	15,000
Printing and engraving expenses.....	100,000
Accounting fees and expenses.....	150,000
Legal fees and expenses.....	350,000
Transfer agent and registrar fees.....	100,000
Miscellaneous expenses.....	6,257

Total.....	\$775,000
	=====

All of the above figures, except the SEC registration fee and NASD filing fee, are estimates.

ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law grants the Company the power to indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative by reason of the fact that he is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Company, and with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful, provided, however, no indemnification shall be made in connection with any proceeding brought by or in the right of the Company where the person involved is adjudged to be liable to the Company except to the extent approved by a court. Article V of the Company's Amended and Restated By-laws provides that the Company shall, to extent legally permitted, indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding by reason of the fact that he is or was, or has agreed to become, a director or officer of the Company, or is or was serving, or has agreed to serve, at the request of the Company, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise. The indemnification provided for in Article V is expressly not exclusive of any other rights to which those seeking indemnification may be entitled under any law, agreement or vote of stockholders or disinterested directors or otherwise, and shall inure to the benefit of the heirs, executors and administrators of such persons. Article V also provides that the Company shall have the power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, against any liability asserted against and incurred by such person in any such capacity.

Pursuant to Section 102(b)(7) of the Delaware General Corporation Laws,

Section 7 of Article FIFTH of the Company's Restated Certificate eliminates a director's personal liability for monetary damages to the Company and its stockholders for breaches of fiduciary duty as a director, except in circumstances involving a breach of a director's duty of loyalty to the Company or its stockholders,

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acts or omissions not in good faith, intentional misconduct, knowing violations of the law, self-dealing or the unlawful payment of dividends or repurchase of stock.

ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES

Since June 1, 1993, the Company has issued and sold the following securities, in each case in reliance on an exemption from required registration pursuant to Section 4(2) of the Securities Act:

In December 1993, in exchange for the transfer to the Company of substantially all of the assets and liabilities of the Partnership, the Company issued 1,500 shares of its Common Stock to the Partnership.

Commencing in March 1995, the Company has granted employees and consultants options under its Amended and Restated 1994 Equity Incentive Plan, which options have a ten-year term and are exercisable at a price equal to fair market value on the date of grant, as determined in good faith by the Board of Directors. As of June 30, 1996, options for 1,135,920 shares of the Company's Common Stock were outstanding. As of such date, an option for 625 shares of Common Stock had been exercised at \$0.02 per share.

In addition, from inception through June 1996, the Company made grants of an aggregate of 523,047 shares of Common Stock to certain employees and consultants of the Company. Such shares are subject to repurchase rights held by the Company and were sold at fair market value on the date of grant.

In November 1994, the Company declared and paid a stock dividend of 3,332.33 shares of its Common Stock on each outstanding share of Common Stock held as of October 17, 1994. Pursuant to a Plan of Recapitalization, the Partnership surrendered an aggregate of 4,295,500 outstanding shares of Common Stock (after giving effect to such stock dividend) for shares of Series A Convertible Preferred Stock of the Company which will convert into an equal number of shares of Common Stock concurrently with this offering.

During the period from August 1994 through February 1995, certain stockholders of the Company made a series of Bridge Loans to the Company for an aggregate of \$2,400,000 in exchange for promissory notes and warrants to purchase an aggregate of 240,000 shares of Common Stock, exercisable at \$0.25 per share until the earlier of the effective date of an initial public offering or various dates through December 31, 1999. In November 1995, the Bridge Loans were converted to shares of Series A Preferred Stock, which will convert into 960,000 shares of Common Stock concurrently with the closing of this offering.

In November 1995, the Company issued 1,800,000 shares of Series B Preferred Stock to Physica B.V., which will convert into 900,000 shares of Common Stock concurrently with the closing of this offering, for cash at the purchase price of \$3.89 per share.

In April 1996, all accrued interest outstanding on the Bridge Loans through November 1995 was converted into shares of Series A Preferred Stock, which will convert into 56,714 shares of Common Stock concurrently with the closing of this offering. In April 1996, the Company also issued shares of Series B Preferred Stock to Physica B.V., which will convert into 7,734 shares of Common Stock concurrently with the closing of this offering, in consideration of Physica B.V.'s waiver of its anti-dilution rights under the Company's Amended and Restated Certificate of Incorporation and its right of first refusal with respect to such shares of Series A Preferred Stock.

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ITEM 16.
(a) EXHIBITS

EXHIBIT NO.

DESCRIPTION

1.1++ Form of Underwriting Agreement.
3.1++ Amended and Restated Certificate of Incorporation of ArQule, as amended through the date hereof.

3.2++ Form of Certificate of Amendment to the Amended and Restated Certificate of Incorporation as proposed to be filed upon the effectiveness of this Registration Statement.
3.3++ Form of Amended and Restated Certificate of Incorporation as proposed to be filed concurrently with the closing of this offering.
3.4++ By-laws of ArQule, Inc.
3.5++ Form of Amended and Restated By-laws as proposed to be adopted concurrently with the closing of this offering.
4.1++ Specimen Common Stock Certificate.
4.2++ Specimen Common Stock Purchase Warrant.
5.1++ Opinion of Palmer & Dodge LLP as to the legality of the shares being registered.
10.1*++ Amended and Restated 1994 Equity Incentive Plan, as amended through October 17, 1994.
10.2*++ 1996 Employee Stock Purchase Plan.
10.3*++ 1996 Director Stock Option Plan.
10.4++ Form of Indemnification Agreement between ArQule and its directors. Such agreements are materially different only as to the signing directors and the dates of execution.
10.5++ Investors' Rights Agreement among ArQule and certain stockholders of the Company dated November 2, 1995.
10.6++ Lease Agreement dated September 29, 1993 between ArQule and Beautyrest Property, Inc. and WRB, Inc.
10.7++ Lease Agreement, dated July 27, 1995, between ArQule and Cummings Properties Management, Inc., as amended.
10.8*++ Employment Agreement effective as of January 2, 1996, between ArQule and Eric B. Gordon.
10.9* Employment Agreement effective as of July 9, 1996, between ArQule and James R. Fitzgerald, Jr. To be filed by amendment.
10.10*++ Promissory Note dated November 2, 1995 between Dr. Joseph C. Hogan, Jr. and ArQule.
10.11* Pledge Agreement dated November 2, 1995 between Dr. Joseph C. Hogan, Jr. and ArQule. To be filed by amendment.
10.12*++ Promissory Note and Pledge Agreement dated July 9, 1996 between Eric B. Gordon and ArQule.
10.13*++ Promissory Note dated November 4, 1993 between Dr. Joseph C. Hogan, Jr. and ArQule.
10.14+++ Research, Development and License Agreement between ArQule and Solvay Duphar B.V. dated November 2, 1995.
10.15+++ Research & Development and License Agreement between ArQule and Abbott Laboratories dated June 15, 1995, as amended.
10.16+++ Research & Development Agreement between ArQule and Pharmacia Biotech AB dated March 10, 1995, as amended.
10.17+++ Option Agreement between ArQule and Pharmacia Biotech AB dated March 10, 1995, as amended. Filed herewith.
10.18*++ Adoption Agreement for Fidelity Management and Research Company (ArQule's 401(k) plan).

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EXHIBIT NO.

DESCRIPTION

10.19+++ Research and License Agreement between ArQule and Roche Bioscience dated September 13, 1996.
11.1++ Statement re computation of unaudited pro forma net loss per share.
23.1 Consent of Price Waterhouse LLP. Filed herewith.
23.2++ Consent of Palmer & Dodge LLP. Included in the opinion filed as Exhibit 5.1.
24.1++ Power of attorney. Included on the signature page hereto.
27.1++ Financial Data Schedule.

<FN>

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* Indicates a management contract or compensatory plan.

+ Certain confidential material contained in the document has been omitted and filed separately, with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

++ Previously filed.

(B) FINANCIAL STATEMENT SCHEDULE

PAGE

II Valuation and Qualifying Accounts and Reserves..... S-1

ITEM 17. UNDERTAKINGS

(a) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the provisions described under "Item 14--Indemnification of Directors and Officers" above, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

(b) The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) The undersigned Registrant hereby undertakes to provide to the Underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the Underwriters to permit prompt delivery to each purchaser.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has duly caused this Amendment to be signed on its behalf by the undersigned, thereunto duly authorized, in the Town of Medford, Commonwealth of Massachusetts, on October 4, 1996.

ARQULE, INC.

By: _____
 Eric B. Gordon
 President and Chief Executive Officer

POWER OF ATTORNEY

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

SIGNATURE -----	TITLE -----	DATE -----
* ----- Eric B. Gordon	President, Chief Executive Officer and Director (Principal Executive Officer, Principal Financial Officer and Principal Accounting Officer)	October 4, 1996
* ----- Stephen M. Dow	Director	October 4, 1996
* ----- Joseph C. Hogan, Jr.	Director	October 4, 1996
* ----- Adrian de Jonge	Director	October 4, 1996
* ----- Allan R. Ferguson	Director	October 4, 1996
*By: /s/ MICHAEL LYTTON ----- Michael Lytton Attorney-in-Fact		

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SCHEDULE II

ARQULE, INC.

VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

DESCRIPTION -----	BALANCE AT BEGINNING OF PERIOD -----	CHARGED TO COSTS AND EXPENSES -----	CHARGED TO OTHER ACCOUNTS -----	DEDUCTIONS AND WRITE-OFFS -----	BALANCE AT END OF PERIOD -----
Deferred tax asset valuation allowance					
Year ended December 31, 1994.....	\$ 586,000(1)	1,758,000	--	--	2,344,000
Year ended December 31, 1995.....	2,344,000	1,040,000	--	--	3,384,000

<EN>

(1) Represents deferred tax asset valuation allowance recorded as of December 30, 1993 upon incorporation of the Company.

EXHIBIT INDEX

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<FN>

* Indicates a management contract or compensatory plan.

+ Certain confidential material contained in the document has been omitted and filed separately, with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended.

++ Previously filed.

CONSENT TO INDEPENDENT ACCOUNTANTS

We hereby consent to the use in the Prospectus constituting part of this Registration Statement on Form S-1 of our report dated October 2, 1996 relating to the financial statements of ArQule, Inc., which appears in such Prospectus. We also consent to the application of such report to the Financial Statement Schedule for the two years ended December 31, 1995 listed under item 16(b) of this Registration Statement when such schedule is read in conjunction with the financial statements referred to in our report. The audits referred to in such report also included this schedule. We also consent to the reference to us under the heading "Experts" in such Prospectus.

PRICE WATERHOUSE LLP

Boston, Massachusetts

October 3, 1996