ARQULE INC
Form S-3/A
May 01, 2001

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As filed with the Securities and Exchange Commission on May 1, 2001.
Registration No. 333-54796

U.S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Amendment No. 2

to
FORM S-3

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

ARQULE, INC.
(Exact name of registrant as specified in its charter)

DELAWARE	04-3221586
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

19 PRESIDENTIAL WAY
WOBURN, MASSACHUSETTS 01801
(781) 994-0300
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

DR. STEPHEN A. HILL
PRESIDENT AND CHIEF EXECUTIVE OFFICER
ARQULE, INC.
19 PRESIDENTIAL WAY
WOBURN, MASSACHUSETTS 01801
(781) 994-0300
(Name, address, including zip code, and telephone number, including area code, of agent for service)

with copies to:
PAUL M. KINSELLA, ESQ.
Palmer & Dodge LLP
One Beacon Street
Boston, Massachusetts 02108
(617) 573-0100

Approximate date of commencement of proposed sale to the public:

From time to time after the effective date of this Registration Statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.|_|

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box. |X|

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

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

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

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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 SAID SECTION 8(a), MAY DETERMINE.

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WE WILL AMEND AND COMPLETE THE INFORMATION IN THIS PROSPECTUS. THE SELLING SHAREHOLDERS MAY NOT SELL THE SHARES OF OUR COMMON STOCK TO BE OFFERED WITH THIS PROSPECTUS UNTIL THIS REGISTRATION STATEMENT FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PROSPECTUS IS NOT AN OFFER TO SELL THESE SECURITIES, AND WE ARE NOT SOLICITING OFFERS TO BUY THESE SECURITIES IN ANY STATE WHERE THE OFFER OR SALE IS NOT PERMITTED OR LEGAL.

PROSPECTUS
ARQULE, INC.
3,103,567 SHARES
COMMON STOCK

The shareholders named on page 9 and 10 are selling up to 3,103,567 shares of our common stock. ArQule issued the shares to the selling stockholders in connection with our acquisition of Camitro Corporation in January 2001.

We list our common stock for trading on the Nasdaq National Market under the symbol "ARQL". On April 18, 2001, the last reported sale price of the common stock on the Nasdaq National Market was $13.77 per share.

INVESTING IN OUR COMMON STOCK INVOLVES A HIGH DEGREE OF RISK. BEFORE BUYING ANY SHARES YOU SHOULD READ THE DISCUSSION OF MATERIAL RISKS OF INVESTING IN OUR COMMON STOCK IN "RISK FACTORS" BEGINNING ON PAGE 2.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ADEQUACY OR ACCURACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is_____, 2001

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ARQULE, INC.

We are a drug discovery company. We facilitate development of new drugs by applying our expertise in the design, production and evaluation of chemical compounds. We offer a range of products and services tailored to our customers' needs for drug discovery assistance, including generating potential drug candidates, assessing the suitability of drug candidates and selecting the most promising candidates. Our automated molecular assembly plant, for example, rapidly produces large quantities of compounds of known chemical structure. Other technologies are capable of screening compounds for characteristics of potential medicines. We believe that our products and services provide our customers with an efficient strategy for generating and selecting drug candidates for clinical trials, which should lower both the cost and time needed to successfully develop marketable medicines.

Advances in genomics, the study of the relationship between genes and disease, are rapidly increasing the scientific understanding of various medical problems. This increased understanding is dramatically expanding the number of potential drug targets. Fulfilling the promise of genomics, however, requires similar advances in the design, production and evaluation of chemical compounds that interact with the newly identified drug targets. We believe that our systematic approach to drug discovery assists our customers in addressing that need.

We provide our products and services under collaboration agreements with a number of pharmaceutical companies, including Pfizer, Inc, Bayer AG, American Home Products Corporation, Solvay Pharmaceuticals B.V., Pharmacia Corp., Sankyo Company, Ltd., Johnson & Johnson, Inc. and GlaxoSmithKline.

Our principle executive offices are located at 19 Presidential Way, Woburn, MA 01801, where the phone number is 781-994-0300.

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RISK FACTORS

You should carefully consider the risks described below together with all of the other information included in this prospectus before making an investment decision. If any of the following risks actually occurs, our business, results of operations and financial condition could suffer. In that case, the trading price of our common stock could decline, and you could lose all or part of your

investment.

Although we were profitable in fiscal year 2000, we may not be able to sustain profitability.

From our inception in 1993 to December 31, 2000, we have incurred cumulative net losses of approximately $30.7 million. The costs of our research activities and enhancements to our technology principally have resulted in these losses. We have derived our revenue primarily from:

- license fees;
- payments for product deliveries;
- milestone payments; and
- research and development funding paid under our agreements with our collaboration partners.

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To date, except for during 1997 and 2000, these revenues have not generated profits, nor have we realized any revenue from royalties from the sale by any of our collaboration partners of a commercial product developed using our technology.

OUR STRATEGY OF USING OUR TECHNOLOGIES TO ASSIST IN THE DEVELOPMENT OF NEW DRUGS AND OTHER PRODUCTS MAY NOT BE COMMERCIALLY SUCCESSFUL.

Our approach to compound discovery has not yet yielded a commercially successful drug.

Our strategy is to use our technologies to rapidly identify, optimize and obtain financial interest in as many compounds with commercial potential as possible. This approach has not yet yielded any commercially successful drug. In addition, we have recently reoriented our business and technology strategies to offer comprehensive compound discovery, in addition to chemical compound products and services. Our potential customers may not accept our new strategy. In particular, we have not proven that we can use our products successfully to assist our customers to conduct lead optimization. Our ability to succeed depends on our potential customers accepting our approach to crafting viable chemical compounds, known as combinatorial chemistry, and comprehensive compound discovery as effective tools in the discovery and development of compounds with commercial potential. If we cannot demonstrate that our approach can result in successful products, we may not be able to attract additional customers or to retain our existing customers. Furthermore, our wholly-owned subsidiary, Camitro Corporation has not launched any of its products and, therefore, the market may not accept any of its products. If the market does not accept these products, or does so at a lower than expected rate, we may not be able to attract new customers to support such products.

The specialized nature and high price of our services limit our potential customer base. These potential customers may decide to try to use our approach themselves without our assistance, or they may try other methods.

Because we offer specialized assistance in the development of drugs, our potential customer base consists of a limited number of pharmaceutical and biotechnology companies and research institutions. These companies have

historically identified lead compounds and capitalized upon the most promising leads within their own research departments. Because of the high cost of our products and programs, they may decide to conduct these activities without our assistance.

WE DEPEND ON COLLABORATION ARRANGEMENTS WITH THIRD PARTIES FOR OUR REVENUE AND OUR COLLABORATIONS MAY NOT BE SUCCESSFUL OR WE MAY NOT REALIZE MUCH OF THE POTENTIAL REVENUE FROM OUR COLLABORATIONS.

We will only realize much of the potential revenue under these collaborations if we meet compound delivery goals, satisfy milestones and earn royalties.

Our revenue stream and our business strategy depend largely on the formation of collaborative arrangements with third parties, initially pharmaceutical and biotechnology companies and research institutions. To date, we have entered into many of these arrangements. Much of the potential revenue from our collaborations consists of contingent payments, such as payments for achieving development milestones and royalties payable on sales of drugs developed using our products. We may not achieve these milestones and our partners may not develop commercial drugs or other products on which we will receive royalties.

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Our ability to realize potential revenue from milestones and royalties from our collaborations depends, in large part, on the efforts of our partners, over which we have little control.

Much of the revenue from milestones and royalties that we may receive under these collaborations will depend upon our partners' ability to successfully develop, introduce, market and sell new drugs they develop using our products. Our products will result in commercialized drugs generating milestone payments and royalties only after, among other things:

- significant preclinical and clinical development efforts or the completion of preliminary field trials;
- the receipt of the required regulatory approvals;
- developing manufacturing capabilities; and
- successful marketing efforts.

With the exception of certain aspects of preclinical drug development, we do not currently intend to perform any of these activities. Accordingly, we will depend on our partners having the necessary expertise and dedicating sufficient resources to develop and commercialize products. Our collaboration partners may fail to develop or commercialize a compound or product to which they have obtained rights from us, because, among other reasons:

- they decide not to devote the necessary resources because of internal constraints or other development priorities;
- they decide to pursue a competitive potential drug or compound developed outside of the collaboration; or
- they cannot obtain the necessary regulatory approvals.

For our strategy to be successful, we must maintain existing collaborations and enter into new ones, either of which may not be possible to do.

To be successful, we must expand the number of our collaborations both by maintaining existing collaborations, as well as continuing to enter into agreements with new partners to use our technology to develop potential drugs. We may not be able to maintain our existing collaborations or establish new collaborations with commercially acceptable terms.

WE MAY NOT SUCCESSFULLY INTEGRATE CERTAIN ASPECTS OF CAMITRO OPERATIONS, THE INTEGRATION OF THE BUSINESSES MAY BE COSTLY, AND WE MAY ULTIMATELY NOT CAPITALIZE ON CAMITRO'S TECHNOLOGY AND KNOW-HOW.

On January 29, 2001, we acquired Camitro Corporation, a California corporation, through a wholly owned subsidiary of ours. We have to integrate certain aspects of Camitro's operations into our pre-existing operations. The integration will require significant efforts from each company, including coordinating research and development efforts. Camitro personnel may leave because of the merger. Camitro collaborators, customers, distributors, or suppliers may terminate their arrangements with Camitro or demand new arrangements. Integrating our operations may distract management's attention from the day-to-day business of the combined company. If ArQule is unable to successfully integrate certain aspects of the operations of the two companies or if this integration process costs more than expected, ArQule's future results will be negatively impacted.

OUR COMPETITORS MAY HAVE GREATER RESOURCES OR RESEARCH AND DEVELOPMENT CAPABILITIES THAN WE HAVE AND WE MAY NOT HAVE THE RESOURCES REQUIRED TO SUCCESSFULLY COMPETE WITH THEM.

The drug development business is highly competitive. We compete with many organizations that are engaged in attempting to identify and utilize compounds as potential drugs. Many of these competitors have greater financial and human resources and more experience in research and development than we have. They include:

- biotechnology, pharmaceutical, combinatorial chemistry and other companies;
- academic and scientific institutions;
- governmental agencies; and
- public and private research organizations.

Historically, pharmaceutical companies have maintained close control over their research activities, including the synthesis, screening and optimization of potential drugs. Many of these companies, which represent a significant potential market for our products and services, have developed or are developing internal compound discovery processes and other capabilities to improve productivity. We anticipate that we will face increased competition in the future as new companies enter the market and alternative technologies become available.

WE DEPEND ON OUR KEY PERSONNEL, THE LOSS OF WHOM WOULD HURT OUR ABILITY TO COMPETE.

We are highly dependent on the principal members of our scientific and management staff which includes Stephen A. Hill, David C. Hastings, Phillipe Bey and Harold E. Selick. The loss of one or more of these members of our staff

could have a material adverse effect on our business. We have employment agreements with Stephen Hill, Phillipe Bey and Harold E. Selick. We do not maintain keyperson life insurance coverage on the life of any employee. Our success will depend in part on our ability to identify, attract and retain qualified managerial and scientific personnel. We face intense competition for qualified personnel in our industry. We may not be able to continue to attract and retain personnel with the advanced technical qualifications or managerial expertise necessary for the development of our business.

WE FACE UNCERTAINTY IN RAISING ADDITIONAL FUNDS THAT MAY BE NECESSARY TO FUND OUR OPERATIONS.

Our capital requirements depend on many factors. If our operations do not become profitable on a sustainable basis before we exhaust existing resources, we will need to obtain additional financing, either through public or private financings, including debt or equity financings, or through collaborations or other arrangements with corporate partners. We may not be able to obtain adequate funds for our operations from these sources when needed or on acceptable terms. If we raise additional capital through the sale of equity, or securities convertible into equity, it may dilute your proportionate ownership in ArQule. If we cannot obtain additional financing, we could be forced to delay or scale back our research and development programs. If adequate funds are not available, we may be required to curtail operations significantly or to obtain funds by entering into arrangements with collaboration partners or others that may require that we relinquish rights to certain technologies, product candidates, products or potential markets.

WE WILL NOT BE ABLE TO SUCCESSFULLY GROW OUR BUSINESS IF WE ARE UNABLE TO EXPAND AND INTEGRATE OUR TECHNOLOGIES.

Our success depends on the integration and expansion of various chemistry-based drug discovery technologies. In order for us to achieve our goal of reducing the current industry average for identifying investigational new drug candidates, or IND candidates, by half, we will have to integrate and acquire complimentary technologies. We also must successfully structure and manage multiple collaborative relationships. If we do not, we could lose significant amounts of revenues. Further, we may not succeed in managing and meeting the staffing requirements of additional collaborative relationships.

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OUR PATENTS AND OTHER PROPRIETARY RIGHTS MAY FAIL TO PROTECT OUR TECHNOLOGIES AND THIS FAILURE COULD MATERIALLY ADVERSELY AFFECT OUR BUSINESS.

Our success will depend on our ability to obtain and protect patents on our technology and to protect our trade secrets. We may not receive any additional patents, and the claims of our patents may not offer significant protection of our technology. Third parties may challenge, narrow, invalidate or circumvent our patents. In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, such as infringement suits or interference proceedings. These lawsuits could be expensive, take significant time and divert management's attention from other business concerns. We may also provoke these third parties to assert claims against us. The patent position of biotechnology firms is generally highly uncertain, involves complex legal and factual questions, and has recently been the subject of much litigation. Neither the U.S. Patent and Trademark Office, nor the courts have set forth a consistent policy regarding the breadth of claims allowed or the degree of protection afforded under many biotechnology patents. In addition, there is a substantial

backlog of biotechnology patent applications at the U.S. Patent and Trademark Office, and the approval or rejection of patent applications may take several years.

In an effort to protect our trade secrets, we require our employees, consultants and advisors to execute confidentiality agreements. These agreements, however, may not provide us with adequate protection against improper use or disclosure of confidential information. In addition, in some situations, these agreements may conflict with, or be subject to, the rights of third parties with whom our employees, consultants or advisors have previous employment or consulting relationships. Also, others may independently develop substantially equivalent proprietary information and techniques, or otherwise gain access to our trade secrets.

OUR SUCCESS WILL DEPEND PARTLY ON OUR ABILITY TO OPERATE WITHOUT INFRINGING ON OR MISAPPROPRIATING THE PROPRIETARY RIGHTS OF OTHERS.

Others may sue us for infringing on their patent rights. Intellectual property litigation is costly to defend, and, even if we prevail, the cost of such litigation could adversely affect our business, financial condition and results of operations. In addition, litigation is time consuming and could divert management's attention and resources away from our business. If we do not prevail in litigation, in addition to any damages we might have to pay, we could be required to stop the infringing activity or obtain a license. Any required license may not be available to us on acceptable terms, or at all. In addition, some licenses may be non-exclusive and, accordingly, our competitors may have access to the same technology licensed to us. If we fail to obtain a required license or are unable to design around a patent, we may be unable to sell some of our products. Any of these occurrences will result in lost revenues and profits for us.

OUR COMMON STOCK MAY HAVE A VOLATILE PUBLIC TRADING PRICE AND LOW TRADING VOLUME.

The market price of our common stock has been highly volatile and the market for our common stock has experienced significant price and volume fluctuations, some of which are unrelated to our operating performance. For example, from January 2, 2001 to March 12, 2001, the per share price of our common stock has fluctuated from $31.25 to $14.00 per share with an average daily trading volume over such period of approximately 338,400 shares. Many factors can have a significant adverse effect on our common stock's market price, including:

- announcements by us or our competitors of technological innovations or new commercial products;

- developments concerning our proprietary rights, including patent and litigation matters;

- publicity regarding actual or potential results relating to our or our collaborators' products or compounds under development;

- an unexpected termination of one of our collaborations;

- announcements of business acquisitions and other business ventures;

- regulatory developments in the United States and other countries;

- general market conditions; and

- quarterly fluctuations in our revenues and other financial results.

FORWARD-LOOKING STATEMENTS

It is especially important to keep these risk factors in mind when you read forward-looking statements. These are statements that relate to future periods and include statements about our:

- implementation of corporate strategy;

- financial performance;

- ability to deliver products to our corporate collaborators and to satisfy milestones so that we can earn future payments under our collaboration agreements;

- collaborators' ability to develop and commercialize products using our technology and pay us royalties on the sales of those products;

- ability to enter into future collaborations with pharmaceutical and biotechnology companies and academic institutions;

- product research and development activities and projected expenditures;

- cash needs;

- plans for sales and marketing; and

- results of scientific research.

Generally, the words "anticipates," "believes," "expects," "intends," and similar expressions identify such forward-looking statements. Forward-looking statements involve risks and uncertainties, and our actual results could differ materially from the results discussed in the forward-looking statements because of these and other factors.

USE OF PROCEEDS

We will not receive any of the proceeds from the sale of the shares by the selling stockholders.

RECENT DEVELOPMENTS

ACADIA PHARMACEUTICALS

On December 18, 2000, ArQule and ACADIA Pharmaceuticals entered into a five-year drug discovery collaboration. Under the agreement ACADIA will combine its functional genomics platform with ArQule's Parallel Track(TM) Drug Discovery program to discover novel small molecule drug candidates directed at individual G-protein coupled receptor targets related to the human therapeutics and animal health fields. The companies will share intellectual property resulting from the collaboration, and equally contribute to at least one joint drug discovery program. The companies will share equally any revenues resulting from the commercialization of joint drug discovery programs. In addition to these joint drug discovery programs, each of us will receive the exclusive, worldwide right and license to develop independently certain compounds that we initially

considered developing, but decided not to develop in a joint drug discovery program, subject to a royalty payment to the other party. Each of us will also receive the exclusive worldwide right and license to develop independently certain compounds that did not receive serious consideration for joint development, without payment of any royalties to the other party. On April 7, 1998, we entered into a material transfer and screening agreement with ACADIA. Under this agreement, we provided to ACADIA access to certain ArQule compound arrays for screening against their target collection. The drug discovery collaboration agreement supersedes this agreement. On May 10, 2000, we entered into a compound license agreement with ACADIA. Under this agreement, we granted to Acadia an exclusive license to certain of our compounds having activity against certain of their targets, in return for payments and royalties.

GLAXOSMITHKLINE

On November 27, 2000, we entered into a five-year collaboration and license agreement with SmithKline Beecham Corporation, now GlaxoSmithKline. Under the terms of the agreement, GlaxoSmithKline receives access to our Compass Array libraries and Mapping Array libraries for screening primarily in the anti-infective and anti-fungal fields. In addition, GlaxoSmithKline has committed to submit two drug discovery programs to us during the course of the agreement. We have initiated the first of the two drug discovery programs based on a lead compound discovered in a GlaxoSmithKline compound library. We will initiate the second drug discovery program when and if GlaxoSmithKline decides to develop a lead compound discovered in an ArQule compound library. GlaxoSmithKline receives all rights in compounds developed in these drug discovery programs, and must pay us royalties for a period of ten years on any revenues for products developed from such compounds. As of December 31, 2000, we have received no payments under this collaboration. In addition to a committed minimum payment from GlaxoSmithKline, we will receive more than the minimum amount if GlaxoSmithKline continues the first drug discovery program beyond the minimum period and when and if GlaxoSmithKline begins the second drug discovery program. Anytime at its option, GlaxoSmithKline may terminate any of the projects under the agreement prior to their completion, and may terminate the entire agreement before the end of the five-year term, if all such projects have been terminated early. GlaxoSmithKline has agreed to pay us development milestones and royalties on sales of products resulting from the collaboration. These obligations would continue even if GlaxoSmithKline terminated the entire agreement, or any project under the agreement, early. We have not received any milestone or royalty payments.

SOLVAY

In November 1995, we entered into a five-year agreement with Solvay Duphar B.V. Under this agreement, Solvay subscribed to our Mapping Array and Directed Array programs and received a non-exclusive license to our AMAP Chemistry Operating System. This agreement was superseded by an amended and restated agreement with Solvay Pharmaceuticals B.V., which became effective on January 1, 2001. The amended agreement extends the collaboration through December 31, 2003. Under the amended agreement, Solvay receives our Compass Array libraries and continues to access our Mapping Array libraries and Directed Array programs. We received a total of $18.1 million under the original agreement. Solvay is committed to make additional payments totaling $2.5 million under the amended agreement. Solvay has also agreed to make additional payments if we achieve certain development milestones and to pay royalties on sales of any drugs that result from the relationship. To date, we have not received any milestone or royalty payments. In connection with this collaboration, an affiliate of Solvay, Physica B.V., made a $7 million equity investment in ArQule in 1995, acquiring

1,815,468 shares of our Series B preferred stock which converted into 907,734 shares of our common stock upon our initial public offering.

THE ACQUISITION

On January 29, 2001, we acquired Camitro Corporation pursuant to the terms of an Agreement and Plan of Merger dated as of January 16, 2001 among us, a wholly owned subsidiary of ours, Camitro, and certain stockholders of Camitro. In connection with this acquisition, we issued a total of 3,092,037 shares of our common stock and $1,733,055 in cash in consideration for all the Camitro stock. We also reserved 306,762 shares of our common stock for options and warrants of Camitro which we assumed. Camitro now operates as our wholly owned subsidiary.

SELLING STOCKHOLDERS

The selling stockholders were the former stockholders and a warrant holder of Camitro Corporation. We issued the shares covered by this prospectus to them in connection with the acquisition of Camitro. Pursuant to the merger agreement, we agreed to register for resale the shares issued to the selling stockholders.

The following table sets forth the name and number of shares of common stock beneficially owned by the selling stockholders. In the last three years, none of the selling stockholders has held any position or office with, been employed by, or otherwise had a material relationship with, us or any of our predecessors or affiliates other than as stockholders, except as noted below. We are registering the shares to permit public secondary trading of the shares, and the selling stockholders may offer the shares for resale from time to time. See "Plan of Distribution."

Name of Selling Stockholder(1)	Shares Beneficially Owned Before Offering(2)		Shares Offered Purs to This Prospectus
	Number	Percent	
Gary L. Neil	5,425	*	5,425
Kenneth Korzekwa	61,036	*	61,036
Jeffrey P. Jones	5,425	*	5,425
Harold E. Selick	189,890	*	189,890
Bob Powell	5,425	*	5,425
David Fram	10,850	*	10,850
The University of Pittsburgh	22,379	*	22,379
Janet Swearson	33,909	*	33,909
Malcolm Rowland	8,477	*	8,477
John Manchester(5)	6,742(6)	*	5,510
Robert Wells	61,036	*	61,036
Kranz & Associates, LLC	346	*	346
Lisa Peterson	61,036	*	61,036
Jie Q. Wu	3,490	*	3,390
Camilla Marie Olson, as Custodian for Catherine Olson under the Uniform Gift To Minors Act (California)	1,898	*	1,898
Camilla Marie Olson, as Custodian for Mark Olson under the Uniform Gift To Minors Act (California)	1,898	*	1,898

Camilla Marie Olson, as Trustee of the Olson Living Trust dated 10/20/93	80,974	*	80,974
Camilla Marie Olson	50,863	*	50,863
Koenrad Wiedhaup	10,850	*	10,850
Lyn Chambers	1,356	*	1,356
JPMorgan H&Q (Chase)	21,701	*	21,701
Asset Management Assoc. 1996, L.P.	301,413	1.5%	301,413
Pidwell Family Trust	12,056	*	12,056
AMA98 Partners, L.P.	43,950	*	43,950
AMA98 Ventures, L.P.	726,210	3.6%	726,210
AMA98 Corporate, L.P.	87,144	*	87,144
AMA98 Investors, L.P.	109,036	*	109,036
CHL Medical Partners L.P.	417,342	2.0%	417,342
Forward Ventures III L.P.	43,591	*	43,591
Forward Ventures Inst. Partners, L.P.	165,079	*	165,079
GIMV NV	417,342	2.0%	417,342
BayStar Capital L.P.	52,167	*	52,167
BayStar International Ltd.	52,167	*	52,167
Pidwell Investments LLC	10,433	*	10,433
GC&H Investments	10,433	*	10,433
Silicon Valley Bank(7)	11,530(8)	*	11,530(8)

\+ Indicates shares that are subject to contractual restrictions with us.

* Indicates ownership of less than 1%.

(1) This registration statement shall also cover any additional shares of common stock which we issue in connection with the shares registered for sale hereby as a result of any stock dividend, stock split, recapitalization, or other similar transaction effected without receipt of consideration which results in an increase in the number of outstanding shares of common stock.

(2) These share numbers are based on information provided to us by the selling stockholders.

(3) Of these shares, 345,280 are subject, on a pro-rata basis among the selling stockholders, to an Escrow Agreement dated January 29, 2001 among ArQule, the shareholder representative, and the escrow agent, which will expire on March 31, 2002.

(4) The numbers in this column assume that the selling stockholders will sell all of the common stock offered for sale under this prospectus. There can be no assurance that the selling stockholders will sell all or any part of the shares offered under this prospectus.

(5) Mr. Manchester has been an employee of ArQule since October 1999.

(6) Includes 750 shares of common stock issuable to Mr. Manchester upon exercise of outstanding options exercisable within the 60 day period following January 16, 2001.

(7) In connection with the acquisition of Camitro Corporation, ArQule has guaranteed a $1.5 million equipment lease line of credit with Silicon Valley Bank, of which approximately $1,336,000 is presently outstanding.

(8) This number represents shares underlying warrants that were assumed by ArQule in connection with the acquisition of Camitro. Silicon Valley Bank net exercised these warrants on February 13, 2001 and ArQule issued the shares on February 21, 2001.

PLAN OF DISTRIBUTION

The selling stockholders include their respective pledgees, donees, transferees or other successors-in-interest selling shares received from a selling stockholder as a gift, partnership distribution or other non-sale related transfer after the date of this prospectus. A supplement to this prospectus may be filed naming that successor-in-interest prior to consummating a sale hereunder.

The selling stockholders may offer the shares of common stock covered by this prospectus from time to time in transactions in the over-the-counter market, on any exchange where the common stock is then listed, with broker-dealers or third-parties other than in the over-the-counter market or on an exchange (including in block sales), in connection with short sales, in privately negotiated transactions, in connection with writing call options or in other hedging arrangements, or in transactions involving a combination of such methods.

The selling stockholders may sell their shares at market prices prevailing at the time of sale, at prices related to such prevailing market prices, at negotiated prices, at fixed prices, or a combination of these prices. The selling stockholders shall have the sole and absolute discretion not to accept any

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purchase offer or make any sale of shares if they deem the purchase price to be unsatisfactory at any particular time.

The selling stockholders may sell the shares directly to market makers acting as principals and/or broker-dealers as agents for themselves or their customers. If this happens, these broker-dealers may receive compensation in the form of discounts or commissions from the selling stockholders and/or the purchasers of shares for whom these broker-dealers may act as agents or to whom they sell as principal, or both (which compensation to a particular broker might be in excess of customary compensation).

We cannot assure that all or any of the shares offered hereby will be issued to, or sold by, the selling stockholders. The selling stockholders and any broker, dealers or agents that participate with the selling stockholder in the distribution of the shares may be deemed to be "underwriters" as such term is defined in the Securities Act of 1933. The provisions of the Securities Act of 1933 may deem as underwriting commissions or discounts any commissions paid or any discounts or concessions allowed to any such persons, and any profits received on the resale of such shares of common stock offered by this prospectus.

To the extent required, we will amend or supplement this prospectus to disclose material arrangements regarding the plan of distribution.

To comply with the securities laws of certain jurisdictions, registered or licensed brokers or dealers may need to offer or sell the shares offered by this prospectus.

The applicable rules and regulations under the Securities Exchange Act of 1934, may limit any person engaged in a distribution of the shares of common stock covered by this prospectus in its ability to engage in market activities with respect to such shares. A selling stockholder, for example, will be subject to applicable provisions of the Securities Exchange Act of 1934 and the rules and regulations under it, which provisions may limit the timing of purchases and sales of any shares of common stock by that selling stockholder. The foregoing may affect the marketability of the shares offered by this prospectus.

We have agreed to pay certain expenses of the offering and issuance of the shares covered by this prospectus, including the printing, legal and accounting expenses we incur and the registration and filing fees imposed by the SEC or the Nasdaq National Market. We will not pay brokerage commissions or taxes associated with sales by the selling stockholders or any legal, accounting and other expenses of the selling stockholders.

We have agreed with the selling stockholders, subject to certain conditions, to keep the registration statement of which this prospectus constitutes a part effective until two years from the effective date or, if earlier, such time as all of the shares have been disposed of pursuant to and in accordance with the registration statement.

We have agreed to indemnify the selling stockholders, or their transferees or assignees, against certain liabilities, including liabilities under the Securities Act.

LEGAL MATTERS

Our counsel, Palmer & Dodge LLP, Boston, Massachusetts, will pass on the validity of the shares of common stock offered by this prospectus. Paul M. Kensella, a partner of Palmer & Dodge LLP, is our Secretary.

EXPERTS

"The financial statements incorporated in this Prospectus by reference to the Annual Report on Form 10-K of Arqule, Inc. for the year ended December 31, 2000 and the audited historical financial statements of Camitro Corporation for the year ended December 31, 2000 included under section 99.1 of Arqule, Inc.'s Form 8-K/A dated January 29, 2001 have been so incorporated in reliance on the reports of PricewaterhouseCoopers LLP, independent accountants, given on the authority of said firm as experts in auditing and accounting."

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" information from other documents that we file with them, which means that we can disclose important information by referring to those documents. The information incorporated by reference is considered to be part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 prior to the sale of all the shares covered by this prospectus:

- Annual Report on Form 10-K for the fiscal year ended December 31, 2000, filed with the SEC on March 22, 2001, and as amended on May 1,

2001.

- Current Report on Form 8-K, as amended filed with the SEC on February 1, 2001 and March 22, 2001.

- Current Report on Form 8-K, filed with the SEC on March 15, 2001.

- The description of our common stock contained in our Registration Statement on Form 8-A, filed on September 25, 1996 including any amendment or reports filed for the purpose of updating such description.

We also incorporate by reference additional documents that we may file with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the sale of all of the securities covered by this prospectus. These include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to you, without charge, upon your written or oral request, a copy of any or all of the documents that we incorporate by reference, including exhibits. Please direct requests to: ArQule, Inc., 19 Presidential Way, Woburn, MA 01801, Attn: David C. Hastings, (781) 994-0300.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly, and special reports and proxy statements and other information with the SEC. You may read and copy any document that we file at the SEC's Public Reference Room at 450 Fifth Street, Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the Public Reference Room. Our SEC filings are also available on the SEC's Web site at http://www.sec.gov. Copies of certain information filed by us with the Commission are also available on

our Web site at http://www.arqule.com. Our Web site is not part of this prospectus. Our common stock is listed on the Nasdaq National Market.

You should rely only on the information contained in this prospectus. We have not authorized any other person to provide you different information. You should not assume that the information in this prospectus is accurate as of any date other than the date below.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The expenses in connection with the securities being registered are as follows:

SEC registration fee	$17,110
Accounting fees and expenses	2,500
Legal fees and expenses	5,000
Printing and photocopying expenses	500

Miscellaneous expenses.....	390
Total.....	$25,500

All of the above figures, except the SEC registration fee, are estimates, and all of the above expenses will be borne by us.

ITEM 15. 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 our 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 our 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, 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 16. EXHIBITS

See the Exhibit Index immediately following the signature page.

ITEM 17. UNDERTAKINGS

The undersigned hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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

(4) That, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to section 13(a) or section 15(d) of the Securities Exchange Act of 1934 that is incorporated by reference in this registration statement shall be deemed to be a new registration statement relating to the securities offered therein and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(5) That insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers or controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the 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.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Amendment No. 2 to the registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Woburn, Commonwealth of Massachusetts, on May 1, 2001.

ArQule, Inc.

By: /s/ STEPHEN A. HILL
Stephen A. Hill
President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, as amended, this Amendment No. 2 to registration statement has been signed below by the following persons in the capacities and on the dates indicated.

SIGNATURE	TITLE	DATE
/s/ STEPHEN A. HILL Stephen A. Hill	President and Chief Executive Officer (Principal Executive Officer)	May 1, 2001
* David C. Hastings	Vice President, Chief Financial Officer and Treasurer (Principal Financial Officer and Principal Accounting Officer)	May 1, 2001
* Laura Avakian	Director	May 1, 2001
* Werner Cautreels	Director	May 1, 2001
* Ariel Elia	Director	May 1, 2001
* L. Patrick Gage	Director	May 1, 2001

* Tuan Ha-Ngoc	Director	May 1, 2001
* Michael Rosenblatt	Director	May 1, 2001

*/s/ Stephen A. Hill

As attorney-in-fact pursuant
to power of attorney.

Exhibit Index

NUMBER	DESCRIPTION
4.1	Specimen Common Stock Certificate. Filed as Exhibit 4.1 to our Registration Statement on Form S-1 (File No. 333-11105) and incorporated herein by reference.
5.1	Opinion of Palmer & Dodge LLP. Previously filed.
23.1	Consent of Counsel (contained in opinion of Palmer & Dodge LLP filed as Exhibit 5.1).
23.2	Consent of PricewaterhouseCoopers LLP. Filed herewith.
23.3	Consent of PricewaterhouseCoopers LLP. Filed herewith.
24.1	Power of Attorney. Previously filed on Signature page.