

VERMILLION, INC.
Form 424B3
May 29, 2008

Table of Contents

PROSPECTUS

**Filed Pursuant to Rule 424(b)(3)
Registration No. 333-146354**

Vermillion, Inc.

4,013,095 Shares of Common Stock

We are registering our common stock, par value \$0.001 per share, for resale by the selling stockholders identified in this prospectus.

The selling stockholders or their permitted transferees or other successors in interest may, but are not required to, sell their common stock in a number of different ways and at varying prices. See **Plan of Distribution** on page 24, for a description of how the selling stockholders may dispose of the shares covered by this prospectus. We do not know when or in what amount the selling stockholders may offer the shares for sale.

We will not receive any of the proceeds from sales of common stock made by the selling stockholders pursuant to this prospectus. We have agreed to pay certain expenses related to the registration of the shares of common stock.

Our common stock trades in the NASDAQ Capital Market under the symbol **VRML**. On May 27, 2008, the last reported sale price of our common stock on the NASDAQ Capital Market was \$2.40 per share.

Investing in our common stock involves risks. See **Risk Factors beginning on page 5.**

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

You should rely only on the information contained and incorporated by reference in this prospectus. We have not authorized anyone else to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell or the solicitation of an offer to buy any securities other than the securities to which it relates, nor an offer or solicitation in any jurisdiction where offers or sales are not permitted. You should assume that the information appearing in this prospectus is accurate only as of its date, even though this prospectus may be delivered or shares may be sold under this prospectus at a later date.

The date of this prospectus is May 28, 2008.

TABLE OF CONTENTS

	Page
<u>PROSPECTUS SUMMARY</u>	1
<u>RISK FACTORS</u>	5
<u>CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	14
<u>USE OF PROCEEDS</u>	15
<u>DETERMINATION OF OFFERING PRICE</u>	15
<u>SELLING STOCKHOLDERS</u>	16
<u>PLAN OF DISTRIBUTION</u>	24
<u>DESCRIPTION OF CAPITAL STOCK</u>	26
<u>LEGAL MATTERS</u>	30
<u>EXPERTS</u>	30
<u>WHERE YOU CAN FIND MORE INFORMATION ABOUT US</u>	30
<u>INCORPORATION BY REFERENCE</u>	30

Table of Contents

PROSPECTUS SUMMARY

This summary highlights selected information from this prospectus. The following summary information is qualified in its entirety by the information contained elsewhere in this prospectus. This summary is not complete and may not contain all of the information that you should consider prior to making an investment decision. You should read the entire prospectus carefully, including the Risk Factors section beginning on page 5 of this prospectus and the financial statements and notes thereto and other information incorporated by reference in this prospectus, before making an investment decision. Unless the context otherwise requires, references to Vermillion, we, us, or the Company refer to Vermillion, Inc. and its wholly owned subsidiaries.

All share and per share amounts in this prospectus have been adjusted to reflect the impact of the 1 for 10 reverse stock split of our common stock which was effective as of the close of business on March 3, 2008.

Company Information

We were originally incorporated in California on December 9, 1993, under the name Abiotic Systems. In March 1995, we changed our corporate name to Ciphergen Biosystems, Inc. and subsequently on June 21, 2000, we reincorporated in Delaware. Under the name Ciphergen Biosystems, Inc., we had our initial public offering on September 28, 2000. On November 13, 2006, we sold assets and liabilities of our protein research products and collaborative services business, referred to herein as the Instrument Business Sale, to Bio-Rad Laboratories, Inc., referred to herein as Bio-Rad, in order to concentrate our resources on developing clinical protein biomarker diagnostic products and services. On August 21, 2007, we changed our corporate name to Vermillion, Inc. In conjunction with the name change, we changed our common stock ticker symbol on the NASDAQ Capital Market from CIPH to VRML .

Prior to the Instrument Business Sale, we developed, manufactured and sold ProteinChip Systems for life science research. This patented technology is recognized as Surface Enhanced Laser Desorption/Ionization, or SELDI. The systems consist of ProteinChip Readers, ProteinChip Software and related accessories, which were used in conjunction with consumable ProteinChip Arrays. These products were sold primarily to pharmaceutical companies, biotechnology companies, academic research laboratories and government research laboratories. We also provided research services through our Biomarker Discovery Center laboratories, and offered consulting services, customer support services and training classes to our customers and collaborators.

Since the Instrument Business Sale, we have dedicated ourselves to the discovery, development and commercialization of novel diagnostic tests that help physicians diagnose, treat and improve outcomes for patients. We utilize advanced protein separation methods to identify and resolve variants of specific biomarkers commonly known as translational proteomics, for developing a procedure to measure a property or concentration of an analyte commonly known as an assay, and commercializing novel diagnostic tests.

Through collaborations with leading academic and research institutions, including The Johns Hopkins University School of Medicine, referred to herein as Johns Hopkins; The University of Texas M.D. Anderson Cancer Center, referred to herein as M.D. Anderson; University College London; The University of Texas Medical Branch; The Katholieke Universiteit Leuven; The Ohio State University Research Foundation; and Stanford University, we plan to develop diagnostic tests in the fields of oncology, hematology, cardiology and women's health. We will also address clinical questions related to early stage disease detection, treatment response, monitoring of disease progression, prognosis and others. These research collaborations have provided us with the clinical data and intellectual property portfolio that form the basis of our product pipeline. We are now engaged in product development and commercialization of discoveries made under these collaborations.

In July 2005, we entered into a strategic alliance agreement with Quest Diagnostics Incorporated, referred to herein as Quest, pursuant to which the parties have agreed to develop and commercialize up to three diagnostic tests. The term of the agreement ends on the later of (i) the three-year anniversary of the agreement and (ii) the date on which Quest commercializes the three diagnostic tests. Thus, our major initiatives are currently aimed at commercializing these diagnostic tests, both within the context of our strategic alliance

Table of Contents

agreement with Quest as well as markets in which Quest does not participate, to the extent permitted under the strategic alliance agreement.

Recent Developments

We are a party to a manufacture and supply agreement with Bio-Rad, dated November 13, 2006, whereby we agreed to purchase from Bio-Rad the ProteinChip Systems and ProteinChip Arrays necessary to support our diagnostics efforts. Under the terms of the agreement, we are required to purchase a specified number of ProteinChip Systems and ProteinChip Arrays in each of the three years following the date of the agreement. Pursuant to the manufacture and supply agreement, we are permitted to terminate the agreement for convenience upon 180 days written notice to Bio-Rad. In a letter from us to Bio-Rad dated May 1, 2008, we exercised our right to terminate the manufacture and supply agreement. Consequently, termination of the agreement will become effective on October 28, 2008.

During April 2008, the United States Patent and Trademark Office issued United States Patent No. 7,341,838 to us for the discovery of novel forms of brain natriuretic peptide, referred to herein as BNP. This discovery could potentially improve upon the current standard of care in diagnosing and treating cardiovascular disease and ultimately lead to the development of an improved next-generation assay that might provide physicians with additional, valuable information to stratify patients at risk for cardiovascular disease, including stroke and congestive heart failure. BNP is secreted by the heart and indicates how well the muscle is working. Normally, only a low amount of BNP is found in the blood. However, if the heart has to work harder than usual over an extended period of time, the heart releases more BNP. Elevated levels of BNP can signify congestive heart failure.

Effective April 9, 2008, John F. Hamilton was appointed to serve on our Board of Directors and as Chairman of the Audit Committee of the Board of Directors. Mr. Hamilton replaces Judy Bruner, who resigned from the Board of Directors on April 8, 2008 for personal reasons, and not as the result of any disagreement with us on any matter relating to our operations, policies or practices. Contingent upon attendance at his first board of directors meeting, Mr. Hamilton will receive an initial grant of stock options to purchase 2,500 shares of our common stock, which will vest in equal monthly installments over a twenty-four month period, at an exercise price equal to the fair market value of our common stock on the date of grant. In addition, Mr. Hamilton will be entitled to receive annual compensation consistent with our compensation policy both for his continued service as a non-employee director and as Chairman of the Audit Committee. Prior to this appointment, Mr. Hamilton served as Vice President and Chief Financial Officer of Depomed, Inc., a specialty pharmaceutical company. Mr. Hamilton began his career in the banking industry and went on to hold senior financial positions at several biopharmaceutical companies including Glyko, Inc., which is now BioMarin Pharmaceuticals, and Chiron Corporation. He sits on the regional board of directors of the Association of Bioscience Financial Officers and is a past-president of the Treasurers Club of San Francisco. Mr. Hamilton received his M.B.A. from the University of Chicago and his B.A. in International Relations from the University of Pennsylvania.

On March 20, 2008, we announced our preliminary results from a clinical trial evaluating our ovarian tumor triage test. The study met its primary endpoints in that the ovarian tumor triage test successfully stratified women with pelvic masses into high-risk and low-risk categories, thereby enabling a more informed determination of which patients should be referred to a specialist prior to surgery. These results indicate that the use of the ovarian tumor triage test could significantly increase the percentage of high-risk cases referred to the appropriate specialist for treatment, ultimately improving survival rates. Our novel ovarian biomarker panel ruled out malignancy with approximately 95% certainty or negative predictive value. Negative predictive value is the probability that the patient is free of disease based on diagnostic evaluation. The novel ovarian biomarker panel also showed approximately 90% sensitivity for detecting malignant ovarian tumors. The prospective clinical trial was one of the largest ever conducted and assessed more than 550 patients with a confirmed adnexal mass at 27 clinical trial sites in the United States. We plan to finalize the ovarian tumor triage test clinical trial data evaluation and submit the ovarian tumor triage test clinical trial data to

the United States Food and Drug Administration, referred to herein as the FDA, for clearance as an in vitro diagnostic, referred to herein as IVD, test during the three months ended June 30, 2008.

Table of Contents

In an effort to further streamline operations, we reduced our workforce by 9 employees during March 2008. As a result of the reduction in workforce, we had 19 employees as of March 31, 2008.

On February 22, 2008, the staff of the NASDAQ Listing Qualifications Department, referred to herein as the NASDAQ Staff, notified us that we did not comply with Marketplace Rule 4310(c)(3) for continued inclusion on the NASDAQ Capital Market due to our noncompliance with the \$35,000,000 market value of listed securities requirement for the previous 10 consecutive business days. Pursuant to Marketplace Rule 4310(c)(8)(C), we were granted 30 days, or until March 24, 2008, to regain compliance with the market value of listed securities requirement. We did not regain compliance by March 24, 2008 and on March 25, 2008, we received written notification from the NASDAQ Staff, referred to herein as the Staff Determination Notice, that our securities were subject to delisting unless we requested a hearing before a NASDAQ Listing Qualifications Panel, referred to herein as the Panel. We subsequently requested a hearing before the Panel, which stayed the delisting action by the NASDAQ Staff. On May 1, 2008, we attended a hearing before the Panel to appeal the Staff Determination Notice, however, the Panel has not yet rendered its decision. There can be no assurance that the Panel will grant our request for continued listing on the NASDAQ Capital Market.

On September 6, 2007, we were notified by the NASDAQ Staff that our common stock bid price closed below the minimum \$1.00 per share requirement for continued inclusion by Marketplace Rule 4310(c)(4) and, as required by Marketplace Rule 4310(c)(8)(D), we had 180 days, or until March 4, 2008, to regain compliance. To regain compliance, the bid price of our common stock must close at \$1.00 per share or more for a minimum of 10 consecutive business days. In an effort to meet the minimum \$1.00 per share requirement for continued inclusion by Marketplace Rule 4310(c)(4), we held a special meeting of stockholders on February 14, 2008 at which our stockholders approved the proposal to authorize the Board of Directors in their discretion, without further authorization of our stockholders, to amend our Certificate of Incorporation to effect a reverse split of our common stock by a ratio of between 1 for 6 to 1 for 10. To regain compliance with Marketplace Rule 4310(c)(4), the Board of Directors approved on February 15, 2008, a 1 for 10 reverse stock split, referred to herein as the Reverse Stock Split, of our common stock effective at the close of business on Monday, March 3, 2008. On March 4, 2008, our common stock began trading under the Reverse Stock Split basis. Additionally, beginning on March 4, 2008, our common stock traded for a period of 20 trading days under the ticker symbol `VRMLD` as an interim symbol to denote its new status. After this 20 trading day period, our common stock resumed trading under the ticker symbol `VRML`. On March 18, 2008, the NASDAQ Staff notified us that we had regained compliance with Marketplace Rule 4310(c)(4) with our common stock closing above \$1.00 per share or greater for at least 10 consecutive business days.

On January 30, 2008, we renewed our research collaboration agreement with Johns Hopkins. The agreement has an effective period from January 1, 2008 through December 31, 2010, with automatic one-year extensions for up to three additional years unless terminated by us or Johns Hopkins. Additionally, on February 29, 2008, we entered into an agreement to exclusively license the peripheral arterial disease, referred to herein as PAD, assay from Stanford University.

Table of Contents

The Offering

Common stock offered by selling
stockholders

4,013,095 shares

Use of Proceeds

We will not receive any proceeds from the shares of common stock offered by this prospectus; however, we will receive proceeds from the exercise of warrants to purchase the shares included in the shares that are being offered by the selling stockholders hereunder. Any proceeds we receive from such exercises of warrants will be used for working capital purposes. See **Use of Proceeds** on page 15.

Risk Factors

See **Risk Factors** beginning on page 5 and other information included and incorporated by reference in this prospectus for a discussion of factors you should carefully consider before deciding to invest in the shares.

NASDAQ Capital Market Trading
Symbol

VRML

Table of Contents

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risk factors together with all of the other information contained in this prospectus, including our financial statements and the notes thereto and other information incorporated by reference in this prospectus, before deciding whether to invest in shares of our common stock. Each of these risks could harm our business, operating results, financial condition and/or growth prospects. As a result, the trading price of our common stock could decline and you might lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also adversely affect our business.

Risks Related to Our Business

We expect to continue to incur net losses in 2008. If we are unable to generate significant diagnostic products revenue, we may never achieve profitability.

From our inception through March 31, 2008, we have generated cumulative revenue from the sale of products and services to customers of \$229,353,000 and have incurred net losses of \$243,988,000. We have experienced significant operating losses each year since our inception and we expect these losses to continue for at least the next year, resulting in an expected net loss for the year ending December 31, 2008. For example, we experienced net losses of \$4,846,000 for the three months ended March 31, 2008 and \$21,282,000 for the year ended December 31, 2007. Our losses have resulted principally from costs incurred in research and development, sales and marketing, litigation, and general and administrative costs associated with our operations. These costs have exceeded our gross profit, which was generated principally from product sales and service income derived from our former protein research tools and collaborative services business, which was sold to Bio-Rad in November 2006. We expect to incur additional operating losses that may be substantial. Our failure to become and remain profitable may depress the market price of our common stock and impair our ability to raise capital and continue our operations. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We will need to raise additional capital in the future, and if we are unable to secure adequate funds on terms acceptable to us, we may be unable to execute our business plan.

We believe that our current cash balances will not be sufficient to fund planned expenditures. This raises substantial doubt about our ability to continue as a going concern. During 2008, we will need to raise additional funds through the issuance of equity or debt securities, or a combination thereof, in the public or private markets in order to continue operations. Additional financing opportunities may not be available, or if available, may not be on favorable terms. The availability of financing opportunities will depend, in part, on market conditions, and the outlook for our company. Any future equity financing would result in substantial dilution to our stockholders. If we raise additional funds by issuing debt, we may be subject to limitations on our operations, through debt covenants or other restrictions. If adequate and acceptable financing is not available, we may have to delay development or commercialization of certain of our products or license to third parties the rights to commercialize certain of our products or technologies that we would otherwise seek to commercialize. We may also reduce our marketing or other resources devoted to our products. Any of these options could reduce our ability to successfully execute our business plan.

If the ovarian tumor triage test clinical trial data evaluation is delayed, we may not have sufficient funds to support the submission of the ovarian tumor triage test clinical trial data to the FDA.

We plan to finalize the ovarian tumor triage test clinical trial data evaluation and submit the ovarian tumor triage test clinical trial data to the FDA for clearance as an IVD test during the three months ended June 30, 2008. Our inability to complete the ovarian tumor triage test clinical trial data evaluation within the prescribed timeframe could postpone or halt the submission of the ovarian tumor triage test clinical trial data to the FDA due to insufficient funds. Additionally, any postponement related to ovarian tumor triage test clinical trial data evaluation will ultimately defer the FDA approval process and commercialization of the

Table of Contents

ovarian tumor triage test, which would adversely affect our consolidated revenues, results of operations and financial condition.

Substantial leverage and debt service obligations may adversely affect our consolidated cash flows.

As of March 31, 2008, we had \$19,000,000 of outstanding principal under the convertible senior notes and \$10,000,000 outstanding under our secured line of credit with Quest. As a result of this indebtedness, we have high principal and interest payment obligations. The degree to which we are leveraged could, among other things:

make it difficult for us to make payments on the convertible senior notes and secured line of credit;

make it difficult for us to obtain financing for working capital, acquisitions or other purposes on favorable terms, if at all;

make us more vulnerable to industry downturns and competitive pressures; and

limit our flexibility in planning for or reacting to changes in our business.

Our ability to meet our debt service obligations will depend upon our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control. If we cannot meet our debt service obligation, it would have a material adverse effect on our consolidated financial position.

We hold auction rate securities in our portfolio of investments. Due to failed auctions for some of our auction rate investments through March 31, 2008, we are currently unable to liquidate our auction rate securities into cash. If we are unable to liquidate our investments in auction rate securities within the next several months, other financing sources will be required in order to continue operations.

At March 31, 2008, our investments consisted of \$6,043,000 invested in auction rate securities, which were classified as available-for-sale long-term investments as a result of certain auction rate securities failing to settle at auctions prior to April 30, 2008. These auction rate securities have a rating of AAA by a major credit rating agency. These auction rate securities provide liquidity via an auction process that resets the applicable interest rate at predetermined calendar intervals, which is generally every 28 days. Upon an auction failure, the interest rates do not reset at a market rate but instead reset based on a formula contained in the security, which rate is generally higher than the current market rate. The failure of the auctions means we may be unable to liquidate our auction rate securities into cash until a future auction of these investments is successful or the auction rate security is refinanced by the issuer into another type of debt instrument. The net unrealized loss on marketable securities available-for-sale was \$392,000 at March 31, 2008. Additionally, we recognized an other-than-temporary impairment of \$115,000 for the three months ended March 31, 2008, to reduce the carrying amount of two auction rate securities from \$1,000,000 to \$885,000. The other-than-temporary impairment was a result of multiple auction failures for these auction rate securities and our inability to hold these auction rate securities until the recovery of the par amount due to operating cash requirements within the next twelve months. If we are unable to liquidate our investments in auction rate securities or there is additional other-than-temporary impairment in the market value of our investments in auction rate securities, this will have an adverse effect on our business, consolidated results of operations, financial condition and cash flows, and may increase the volatility of our common stock price. In addition, if we are unable to liquidate our investments in auction rate securities or borrow against these investments within the next several months, we will require other financing sources in order to continue operations, and there can be no assurance that other funding sources will be available.

We may not succeed in developing diagnostic products and even if we do succeed in developing diagnostic products, the diagnostic products may never achieve significant commercial market acceptance.

Our success depends on our ability to develop and commercialize diagnostic products. There is considerable risk in developing diagnostic products based on our biomarker discovery efforts as potential tests may fail to validate results in larger clinical studies and may not achieve acceptable levels of clinical

Table of Contents

sensitivity and specificity. If we do succeed in developing diagnostic tests with acceptable performance characteristics, we may not succeed in achieving significant commercial market acceptance for those tests. Our ability to successfully commercialize diagnostic products that we may develop, such as tests, kits and devices, will depend on several factors, including:

our ability to convince the medical community of the safety and clinical efficacy of our products and their advantages over existing diagnostic products;

our ability to further establish business relationships with other diagnostic companies that can assist in the commercialization of these products; and

the agreement by Medicare and third-party payers to provide full or partial reimbursement coverage for our products, the scope and extent of which will affect patients' willingness to pay for our products and will likely heavily influence physicians' decisions to recommend our products.

These factors present obstacles to significant commercial acceptance of our potential diagnostic products, which we will have to spend substantial time and financial resources to overcome, if we can do so at all. Our inability to successfully do so would prevent us from generating revenue from diagnostic products and from developing a profitable business.

Our ability to commercialize our potential diagnostic tests is heavily dependent on our strategic alliance with Quest.

On July 22, 2005, we entered into a strategic alliance with Quest, which focuses on commercializing up to three diagnostic tests chosen from our pipeline. The term of the agreement ends on the later of (i) the three-year anniversary of the agreement and (ii) the date on which Quest commercializes the three diagnostic tests covered by such agreement. If this strategic alliance does not continue for its full term or if Quest fails to proceed to diligently perform its obligations as a part of the strategic alliance, such as independently developing, validating, and commercializing potential diagnostic tests, our ability to commercialize our potential diagnostic tests would be seriously harmed. Due to the current uncertainty with regard to FDA regulation of analyte specific reagents, referred to herein as ASRs, or for other reasons, Quest may elect to forgo development of ASR home brew laboratory tests and instead elect to wait for the development of IVD test kits, which would adversely affect our revenues. If we elect to increase our expenditures to fund in-house diagnostic development programs or research programs, we will need to obtain additional capital, which may not be available on acceptable terms, or at all.

The commercialization of our potential diagnostic tests may be adversely affected by changing FDA regulations.

The current regulatory environment with regard to ASRs and in vitro diagnostic multivariate index assays in particular, such as our potential ovarian cancer diagnostic test, is very unclear. To the extent the FDA requires that our potential diagnostic tests receive FDA 510(k) clearance or FDA pre-market approval, our ability to develop and commercialize our potential diagnostic tests may be prevented or significantly delayed, which would adversely affect our consolidated revenues, results of operations and financial condition.

If we fail to continue to develop our technologies, we may not be able to successfully foster adoption of our products and services or develop new product offerings.

Our technologies are new and complex, and are subject to change as new discoveries are made. New discoveries and advancements in the diagnostic field are essential if we are to foster the adoption of our product offerings. Development of these technologies remains a substantial risk to us due to various factors, including the scientific challenges involved, our ability to find and collaborate with others working in the diagnostic field, and competing

technologies, which may prove more successful than our technologies. In addition, we have reduced our research and development headcount and expenditures, which may adversely affect our ability to further develop our technologies.

Table of Contents

If we fail to maintain our rights to utilize intellectual property directed to diagnostic biomarkers, we may not be able to offer diagnostic tests using those biomarkers.

One aspect of our business plan is to develop diagnostic tests based on certain biomarkers, which we have the right to utilize through licenses with our academic collaborators, such as Johns Hopkins and M.D. Anderson. In some cases, our collaborators own the entire right to the biomarkers. In other cases, we co-own the biomarkers with our collaborators. If, for some reason, we lose our license to biomarkers owned entirely by our collaborators, we may not be able to use those biomarkers in diagnostic tests. If we lose our exclusive license to biomarkers co-owned by us and our collaborators, our collaborators may license their share of the intellectual property to a third party that may compete with us in offering diagnostic tests, which would materially adversely affect our consolidated revenues, results of operations and financial condition.

We have drawn \$10,000,000 from the secured line of credit provided by Quest. If we fail to achieve the milestones for the forgiveness of the secured line of credit set forth therein, we will be responsible for full repayment of the secured line of credit.

As of March 31, 2008, we had drawn \$10,000,000 from the secured line of credit in connection with our strategic alliance with Quest. We borrowed in monthly increments of \$417,000 over a two-year period, and made monthly interest payments. Funds from this secured line of credit may only be used for certain costs and expenses directly related to the strategic alliance, with forgiveness of the repayment obligations based upon our achievement of milestones related to the development, regulatory approval and commercialization of certain diagnostic tests. Should we fail to achieve these milestones, we would be responsible for the repayment of the outstanding principal amount and any unpaid interest on the secured line of credit on or before July 22, 2010, which would materially adversely affect our consolidated results of operations and financial condition.

If a competitor infringes on our proprietary rights, we may lose any competitive advantage we may have as a result of diversion of management's time, enforcement costs and the loss of the exclusivity of our proprietary rights.

Our success depends in part on our ability to maintain and enforce our proprietary rights. We rely on a combination of patents, trademarks, copyrights and trade secrets to protect our technology and brand. In addition to our licensed SELDI technology, we have also submitted patent applications covering biomarkers that may have diagnostic or therapeutic utility. Our patent applications may not result in additional patents being issued.

If competitors engage in activities that infringe on our proprietary rights, our management's focus will be diverted and we may incur significant costs in asserting our rights. We may not be successful in asserting our proprietary rights, which could result in our patents being held invalid or a court holding that the competitor is not infringing, either of which would harm our competitive position. We cannot be sure that competitors will not design around our patented technology.

We also rely upon the skills, knowledge and experience of our technical personnel. To help protect our rights, we require all employees and consultants to enter into confidentiality agreements that prohibit the disclosure of confidential information. These agreements may not provide adequate protection for our trade secrets, knowledge or other proprietary information in the event of any unauthorized use or disclosure. If any trade secret, knowledge or other technology not protected by a patent were to be disclosed to or independently developed by a competitor, it could have a material adverse effect on our business and consolidated results of operations and financial condition.

If others successfully assert their proprietary rights against us, we may be precluded from making and selling our products or we may be required to obtain licenses to use their technology.

Our success depends on avoiding infringing on the proprietary technologies of others. If a third party were to assert claims that we are violating their patents, we might incur substantial costs defending ourselves in lawsuits against charges of patent infringement or other unlawful use of another's proprietary technology. Any such lawsuit may not be decided in our favor, and if we are found liable, we may be subject to monetary

Table of Contents

damages or injunction against using the technology. We may also be required to obtain licenses under patents owned by third parties and such licenses may not be available to us on commercially reasonable terms, if at all.

Current and future litigation against us could be costly and time consuming to defend.

We are, from time to time, subject to legal proceedings and claims that arise in the ordinary course of business, such as claims brought by our clients in connection with commercial disputes, employment claims made by our current or former employees, and claims brought by third parties alleging infringement on their intellectual property rights. In addition, we may bring claims against third parties for infringement on our intellectual property rights. Litigation may result in substantial costs and may divert management's attention and resources, which may seriously harm our business, consolidated results of operations and financial condition.

An unfavorable judgment against us in any legal proceeding or claim could require us to pay monetary damages. In addition, an unfavorable judgment in which the counterparty is awarded equitable relief such as an injunction could have an adverse impact on our licensing and sublicensing activities which could harm our business, consolidated results of operations and consolidated financial condition.

On September 17, 2007, Molecular Analytical Systems, referred to herein as MAS, filed a lawsuit naming us and Bio-Rad as defendants. Under the lawsuit, MAS seeks an unspecified amount of damages and alleges, among other things, that we are in breach of our license agreement with MAS relating to SELDI technology as a result of our entry into a sublicense agreement with Bio-Rad. We filed our general denial and affirmative defense on April 1, 2008. We intend to vigorously defend this action. Given the early stage of this action, we cannot predict the ultimate outcome of this matter at this time.

Our failure to meet our purchase commitments pursuant to a manufacture and supply agreement with Bio-Rad, could adversely affect our consolidated financial condition and results of operations.

We are a party to a manufacture and supply agreement with Bio-Rad, dated November 13, 2006, whereby we agreed to purchase from Bio-Rad the ProteinChip Systems and ProteinChip Arrays necessary to support our diagnostics efforts. Under the terms of the agreement, we are required to purchase a specified number of ProteinChip Systems and ProteinChip Arrays in each of the three years following the date of the agreement. Pursuant to a letter from us to Bio-Rad dated May 1, 2008, we exercised our right to terminate the agreement for convenience upon 180 days' written notice. Consequently, termination of the agreement will become effective on October 28, 2008. If we are unable to renegotiate our remaining purchase commitment under the agreement, we may need to make additional provisions for excess inventory, which would have an adverse effect on our consolidated results of operations and financial condition.

If we or our suppliers fail to comply with FDA requirements, we may not be able to market our products and services and may be subject to stringent penalties; further improvements to our or our suppliers' manufacturing operations may be required that would entail additional costs.

The commercialization of our products could be affected by being delayed, halted or prevented by applicable FDA regulations. If the FDA were to view any of our actions as non-compliant, it could initiate enforcement actions, such as a warning letter and possible imposition of penalties. In addition, ASRs that we may provide will be subject to a number of FDA requirements, including compliance with the FDA's Quality System Regulations, referred to herein as QSR, which establish extensive requirements for quality assurance and control as well as manufacturing procedures. Failure to comply with these regulations could result in enforcement actions for us or our potential suppliers. Adverse FDA actions in any of these areas could significantly increase our expenses and limit our revenue and profitability. Although we are ISO 9001:2000 certified with respect to our manufacturing processes used for our previous

ProteinChip products, we will need to undertake additional steps to maintain our operations in line with the FDA's QSR requirements. Our suppliers' manufacturing facilities will be subject to periodic regulatory inspections by the FDA and other federal and state regulatory agencies. If and when we begin commercializing and assembling our products ourselves, our facilities will be subject to the same inspections. We or our suppliers may not satisfy such regulatory requirements, and any such failure to do so would have an adverse effect on our diagnostics efforts.

Table of Contents

Because our business is highly dependent on key executives and employees, our inability to recruit and retain these people could hinder our business plans.

We are highly dependent on our executive officers and certain key employees. Effective November 1, 2007, the Chief Financial Officer resigned from the Company for personal reasons. Upon the Chief Financial Officer's resignation, our Corporate Controller was appointed to serve as Chief Financial Officer on an interim basis while we search for a new Chief Financial Officer. As of March 31, 2008, we had 19 employees. Minimal staffing, the absence of a permanent Chief Financial Officer and the loss of service of any other executive officers or certain key employees could impact operations or delay or curtail our research, development and commercialization objectives. To continue our research and product development efforts, we need people skilled in areas such as bioinformatics, biochemistry and information services. Competition for qualified employees is intense.

Our diagnostics efforts may cause us to have significant product liability exposure.

The testing, manufacturing and marketing of medical diagnostic tests entails an inherent risk of product liability claims. Potential product liability claims may exceed the amount of our insurance coverage or may be excluded from coverage under the terms of the policy. Our existing insurance will have to be increased in the future if we are successful at introducing diagnostic products and this will increase our costs. In the event that we are held liable for a claim against which we are not indemnified or for damages exceeding the limits of our insurance coverage, we may be required to make substantial payments. This may have an adverse effect on our consolidated results of operations, financial condition and cash flows, and may increase the volatility of our common stock price.

Business interruptions could limit our ability to operate our business.

Our operations as well as those of the collaborators on which we depend are vulnerable to damage or interruption from fire, natural disasters, computer viruses, human error, power shortages, telecommunication failures, international acts of terror and similar events. Our primary facility is located in Fremont, California, where we also have laboratories. Although we have certain business continuity plans in place, we have not established a formal comprehensive disaster recovery plan, and our back-up operations and business interruption insurance may not be adequate to compensate us for losses we may suffer. A significant business interruption could result in losses or damages incurred by us and require us to cease or curtail our operations.

Legislative actions resulting in higher compliance costs are likely to adversely affect our future consolidated results of operations, financial position and cash flows.

Compliance with laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, new regulations enacted by the Securities and Exchange Commission, referred to herein as the SEC, and NASDAQ listing requirements, are resulting in increased compliance costs. We, like all other public companies, are incurring expenses and diverting our employees' time in an effort to comply with Section 404 of the Sarbanes-Oxley Act of 2002. We are a smaller reporting company and have completed the process documentation of our systems of internal control and have evaluated our systems of internal control. Beginning with the year ended December 31, 2007, we are required to assess continuously our compliance with Section 404 of the Sarbanes-Oxley Act of 2002. We expect to continue to devote the necessary resources, including internal and external resources, to support our assessment. In the future, if we identify one or more material weaknesses, or our independent registered public accounting firm is unable to attest that our management's report is fairly stated or to express an opinion on the effectiveness of our internal control over financial reporting, this could result in a loss of investor confidence in our financial reports, have an adverse effect on our stock price and/or subject us to sanctions or investigation by regulatory authorities. Compliance with these evolving standards will result in increased general and administrative expenses and may cause a diversion of our management's time and attention from revenue-generating activities to compliance

activities.

Table of Contents

We are subject to environmental laws and potential exposure to environmental liabilities.

We are subject to various international, federal, state and local environmental laws and regulations that govern our operations, including the handling and disposal of nonhazardous and hazardous wastes, the recycling and treatment of electrical and electronic equipment, and emissions and discharges into the environment. Failure to comply with such laws and regulations could result in costs for corrective action, penalties or the imposition of other liabilities. We are also subject to laws and regulations that impose liability and clean-up responsibility for releases of hazardous substances into the environment. Under certain of these laws and regulations, a current or previous owner or operator of property may be liable for the costs of remediating hazardous substances or petroleum products on or from its property, without regard to whether the owner or operator knew of or caused the contamination, as well as incur liability to third parties affected by such contamination. The presence of, or failure to remediate properly, such substances could adversely affect the value and the ability to transfer or encumber such property. Based on currently available information, although there can be no assurance, we believe that such costs and liabilities have not had and will not have a material adverse impact on our consolidated results of operations.

Risks Related to Owning Our Stock

Our principal stockholders own a significant percentage of our outstanding common stock and are, and will continue to be, able to exercise significant influence over our affairs.

As of March 31, 2008, Quest possessed voting power over 860,595 shares, or 13.49%, of our outstanding common stock; Ironwood Investment Management, LLC, referred to herein as Ironwood, possessed voting power over 685,881 shares, or 10.75%, of our outstanding common stock; and Phronesis Partners, L.P., referred to herein as Phronesis, possessed voting power over 662,487 shares, or 10.38%, of our outstanding common stock. As a result, Quest, Ironwood and Phronesis are able to determine a significant part of the composition of our Board of Directors, hold significant voting power with respect to matters requiring stockholder approval and to exercise significant influence over our operations. The interests of Quest, Ironwood and Phronesis may be different than the interests of other stockholders on these and other matters. This concentration of ownership also could have the effect of delaying or preventing a change in our control or otherwise discouraging a potential acquirer from attempting to obtain control of us, which could reduce the price of our common stock.

We currently do not meet and there is no guarantee that we will meet the standards for continued listing on the NASDAQ Capital Market. If we are delisted from the NASDAQ Capital Market, the value of your investment in Vermillion may decrease.

On February 22, 2008, the NASDAQ Staff notified us that we did not comply with Marketplace Rule 4310(c)(3) for continued inclusion on the NASDAQ Capital Market due to our noncompliance with the \$35,000,000 market value of listed securities requirement for the previous 10 consecutive business days. Pursuant to Marketplace Rule 4310(c)(8)(C), we were granted 30 days, or until March 24, 2008, to regain compliance with the market value of listed securities requirement. We did not regain compliance by March 24, 2008 and on March 25, 2008, we received a Staff Determination Notice that our securities were subject to delisting unless we requested a hearing before the Panel. We subsequently requested a hearing before the Panel, which stayed the delisting action by the NASDAQ Staff. On May 1, 2008, we attended a hearing before the Panel to appeal the Staff Determination Notice, however, the Panel has not yet rendered its decision. There can be no assurance that the Panel will grant our request for continued listing on the NASDAQ Capital Market.

There is no guarantee that we will continue to meet the standards for listing on the NASDAQ Capital Market in the future. If delisted from the NASDAQ Capital Market, our common stock would be traded over-the-counter, more commonly known as OTC. OTC transactions involve risks in addition to those associated with transactions in

securities traded on the NASDAQ Capital Market. Many OTC stocks trade less frequently and in smaller volumes than NASDAQ-listed stocks. Accordingly, delisting from the NASDAQ Capital Market

Table of Contents

could adversely affect the trading price of our common stock, limit the liquidity of our common stock and/or impair our ability to raise additional funds.

Anti-takeover provisions in our charter, bylaws and stockholder rights plan and under Delaware law could make a third party acquisition of us difficult.

Our certificate of incorporation, bylaws and stockholder rights plan contain provisions that could make it more difficult for a third party to acquire us, even if doing so might be deemed beneficial by our stockholders. These provisions could limit the price that investors might be willing to pay in the future for shares of our common stock. We are also subject to certain provisions of Delaware law that could delay, deter or prevent a change in control of us. The rights issued pursuant to our stockholder rights plan will become exercisable the tenth day after a person or group announces acquisition of 15% or more of our common stock or announces commencement of a tender or exchange offer the consummation of which would result in ownership by the person or group of 15% or more of our common stock. If the rights become exercisable, the holders of the rights (other than the person acquiring 15% or more of our common stock) will be entitled to acquire, in exchange for the rights exercise price, shares of our common stock or shares of any company in which we are merged, with a value equal to twice the rights exercise price.

Because we do not intend to pay dividends, our stockholders will benefit from an investment in our common stock only if it appreciates in value.

We have never declared or paid any cash dividends on our common stock. We currently intend to retain our future earnings, if any, to finance the expansion of our business and do not expect to pay any cash dividends in the foreseeable future. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which our investors purchased their shares.

Our stock price has been highly volatile, and an investment in our stock could suffer a decline in value.

The trading price of our common stock has been highly volatile and could continue to be subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

failure to commercialize diagnostic tests and significantly increase revenue;

actual or anticipated period-to-period fluctuations in financial results;

failure to achieve, or changes in, financial estimates by securities analysts;

announcements or introductions of new products or services or technological innovations by us or our competitors;

publicity regarding actual or potential discoveries of biomarkers by others;

comments or opinions by securities analysts or major stockholders;

conditions or trends in the pharmaceutical, biotechnology and life science industries;

announcements by us of significant acquisitions and divestitures, strategic partnerships, joint ventures or capital commitments;

developments regarding our patents or other intellectual property or that of our competitors;

litigation or threat of litigation;

additions or departures of key personnel;

sales of our common stock;

limited daily trading volume;

delisting from the NASDAQ Capital Market; and

economic and other external factors, disasters or crises.

In addition, the stock market in general, and the NASDAQ Capital Market and the market for technology companies, in particular, have experienced significant price and volume fluctuations that have often been

Table of Contents

unrelated or disproportionate to the operating performance of those companies. Further, there has been significant volatility in the market prices of securities of life science companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been instituted. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of our management's attention and our resources.

We may need to sell additional shares of our common stock or other securities to meet our capital requirements. If we need to sell additional shares of our common stock or other securities to meet our capital requirements, or upon conversion of our senior convertible notes and exercises of currently outstanding options and warrants, the ownership interests of our current stockholders could be substantially diluted. The possibility of dilution posed by shares available for future sale could reduce the market price of our common stock and could make it more difficult for us to raise funds through equity offerings in the future.

As of March 31, 2008, we had 6,380,166 shares of common stock outstanding and 8,158,998 shares of common stock reserved for future issuance to employees, directors and consultants pursuant to our employee stock plans, of which 461,038 shares of common stock were subject to outstanding options. In addition, as of March 31, 2008, warrants to purchase 2,293,147 shares of common stock were outstanding at exercise prices ranging from \$9.25 to \$25.00 per share, with a weighted average exercise price of \$10.79 per share. In addition, there are 27,208 shares of common stock reserved for issuance upon conversion of our outstanding 4.5% convertible senior notes due September 1, 2008, referred to herein as the 4.5% Notes, and 825,000 shares of common stock reserved for issuance upon conversion of our 7.0% convertible senior notes due September 1, 2011, referred to herein as the 7.0% Notes. The exercise or conversion of all or a portion of these securities would dilute the ownership interests of our stockholders. Furthermore, future sales of substantial amounts of our common stock in the public market, or the perception that such sales are likely to occur, could affect prevailing trading prices of our common stock and the value of the notes.

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

We have made statements in this prospectus that are deemed forward-looking statements for purposes of the safe harbor provisions under the Private Securities Litigation Reform Act of 1995. We claim the protection of such safe harbor, and disclaim any intent or obligation to update any forward-looking statement. You can identify these statements by forward-looking words such as may, will, expect, intend, anticipate, believe, estimate, plan, should and continue or similar words. These forward-looking statements may also use different phrases. We have based these forward-looking statements on our management's current expectations and projections about future events. Examples of forward-looking statements include the following statements:

projections of our future revenue, results of operations and financial condition;

anticipated deployment, capabilities and uses of our products and our product development activities and product innovations;

the importance of proteomics as a major focus of biology research;

competition and consolidation in the markets in which we compete;

existing and future collaborations and partnerships;

the utility of biomarker discoveries;

our belief that biomarker discoveries may have diagnostic and/or therapeutic utility;

our plans to develop and commercialize diagnostic tests through our strategic alliance with Quest;

our ability to comply with applicable government regulations;

our ability to expand and protect our intellectual property portfolio;

our ability to decrease general and administrative costs;

our ability to decrease sales and marketing costs;

our ability to decrease research and development costs;

anticipated future losses;

expected levels of capital expenditures;

forgiveness of the outstanding principal amounts of the secured line of credit by Quest;

the period of time for which our existing financial resources, debt facilities and interest income will be sufficient to enable us to maintain current and planned operations; and

the market risk of our investments.

These statements are subject to significant risks and uncertainties, including those identified in the section of this prospectus entitled Risk Factors, that could cause actual results to differ materially from those projected in such forward-looking statements due to various factors, including our ability to generate sales after completing development of new diagnostic products; managing our operating expenses and cash resources that are consistent with our plans; our ability to conduct new diagnostic product development using both our internal research and development resources, and collaboration partners within the budgets and time frames we have established; the ability of the ProteinChip technology to discover protein biomarkers that have diagnostic, theranostic and/or drug development utility; the continued emergence of proteomics as a major focus of biological research and drug discovery; and our ability to protect and promote our proprietary technologies. We believe it is important to communicate our expectations to our investors. However, there may be events in the future that we are not able to accurately predict or that we do not fully control that could cause actual results to differ materially from those expressed or implied in our forward-looking statements.

Table of Contents

USE OF PROCEEDS

We will receive no proceeds from the sale of the shares by the selling stockholders. However, this prospectus covers the offer of shares of common stock issuable in the future upon the exercise of (i) warrants to purchase up to an aggregate of 1,847,324 shares of common stock at an exercise price of \$9.25 per share, subject to certain adjustments, which are exercisable until August 29, 2012, (ii) warrants to purchase up to an aggregate of 4,700 shares of common stock at an exercise price of \$12.60 per share, subject to certain adjustments, which are exercisable until August 2, 2011 and (iii) warrants to purchase up to an aggregate of 4,300 shares of common stock at an exercise price of \$12.60 per share, subject to certain adjustments, which are exercisable until November 14, 2011. If all of these warrants are exercised in full for cash, we would receive aggregate gross proceeds of approximately \$17,201,000. There can be no assurance any of these warrants will be exercised by the selling stockholders or, if exercised, that we will receive any cash proceeds upon such exercises. We expect to use proceeds, if any, from exercise of these warrants for general working capital purposes. We cannot assure that any selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus is a part.

We will pay certain expenses related to the registration of the shares of common stock.

DETERMINATION OF OFFERING PRICE

The selling stockholders will determine at what price they may sell the offered shares, and such sales may be made at prevailing market prices, or at privately negotiated prices.

Table of Contents

SELLING STOCKHOLDERS

We are registering for resale certain shares of our common stock. The term "selling stockholder" includes the stockholders listed below and their transferees, pledgees, donees or other successors. Information concerning the selling stockholders may change after the date of this prospectus and changed information will be presented in a supplement to this prospectus if and when required.

The table below shows the number of shares owned by the selling stockholders as of April 30, 2008 based upon information they have provided to us on or about August 29, 2007 or April 14, 2008, and any subsequent updates of such information, as well as public filings. Beneficial ownership is determined in accordance with the rules of the SEC. Shares of common stock, which are issued and outstanding, are deemed to be beneficially owned by any person who has or shares voting or investment power with respect to such shares. Shares of common stock which are issuable upon exercise of options or warrants are deemed to be issued and outstanding and beneficially owned by any person who has or shares voting or investment power over such shares only if the options or warrants in question are exercisable within 60 days of April 30, 2008, and, in any event, solely for purposes of calculating that person's percentage ownership of the Company's common stock (and not for purposes of calculating the percentage ownership of any other person).

We cannot estimate the number of shares the selling stockholders will hold after completion of this offering because they may sell all or a portion of the shares and there are currently no agreements, arrangements or understandings with respect to the number of shares to be sold by them. We have assumed for purposes of this table that none of the shares offered by this prospectus will be held by the selling stockholders after the completion of this offering. This information is based solely on information provided by or on behalf of the selling stockholders set forth below, and we have not independently verified the information. We may amend or supplement this prospectus from time to time to update the disclosure set forth in it.

Except as disclosed below and in our annual report on Form 10-K for the year ended December 31, 2007, which is incorporated by reference in this prospectus, to our knowledge, none of the selling stockholders has held any position or office or had any other material relationship with us or any of our predecessors or affiliates within the past three years other than as a result of the ownership of our securities.

Certain of the selling stockholders listed in the table below acquired the shares of our common stock and the warrants to which this prospectus relates in a private placement which closed on August 29, 2007. In the private placement, we issued 2,451,306 shares of our common stock and warrants to purchase an additional 1,961,047 shares of our common stock. We also issued 92,100 warrants to purchase shares of our common stock to Oppenheimer & Co. Inc. as partial payment for its services in the private placement pursuant to a placement agent agreement dated March 28, 2007. Pursuant to such agreement, Oppenheimer & Co. Inc. also received a fee of \$1,200,000 for its services as placement agent. In connection with our issuance of the 7.0% Notes, Oppenheimer & Co. Inc. received \$275,000 in financial advisory fees and two warrants to purchase 10,000 shares of our common stock each (one warrant was issued in August 2006 and one warrant was issued in November 2006) pursuant to a letter agreement with the Company dated August 3, 2006. In addition, pursuant to an engagement letter dated August 3, 2006, Oppenheimer & Co. Inc. rendered a fairness opinion in connection with the Instrument Business Sale in November 2006 and received \$250,000 as compensation for such services. Subsequently, Oppenheimer & Co. Inc. transferred 11,000 of the warrants it received in August 2006 and November 2006 and 53,405 of the warrants it received in connection with the private placement in August 2007 to certain of its employees. Jeffrey Cohen, Frank Kee Colen, Christopher Hagar, Chris Hieb, James Irvine, Jason Janosz, Andrew Kaminsky, Steven Krasner, Edward Newman, Michael O Hare, Serena Puerta, Stanley Stern, Henry Williams, Rida Wong and Sun Yung, each of whom is a selling stockholder, are current or former

employees of Oppenheimer & Co. Inc. James L. Rathmann, the Executive Chairman of the Board of Directors, is the general partner of Falcon Technology Partners, L.P., a selling stockholder.

As part of the private placement, we entered into a securities purchase agreement with the purchasers pursuant to which we granted the purchasers registration rights with respect to the shares of common stock issued in the private placement and the shares of our common stock underlying the warrants issued in the private placement. Pursuant to such registration rights, the shares of common stock issued in the private

Table of Contents

placement and the shares of our common stock underlying the warrants issued in the private placement are being registered hereunder except for (i) 238,095 shares and 190,476 shares underlying the warrants issued to Quest in such private placement, (ii) 15,345 shares underlying warrants held by certain employees of Oppenheimer & Co. Inc. who are not exercising registration rights with respect to such shares and (iii) 223,595, 14,500, 119,047 and 7,940 shares of our common stock which were purchased in the private placement by Fort Mason Master, L.P., Fort Mason Partners, L.P., Iroquois Master Fund Ltd. and Rockmore Investment Master Fund Ltd., respectively, and subsequently sold by such entities under the initial registration statement that was declared effective on December 13, 2007 or the post-effective amendment to such registration statement that was declared effective on April 18, 2008 prior to the post-effective amendment to such registration statement of which this prospectus is a part.

We are also registering up to 317,642 shares of our common stock, including 9,000 shares of our common stock issuable upon the exercise of warrants, all of which are being offered for resale for the accounts of the selling stockholders. Some of these shares are being registered pursuant to piggy back registration rights that we granted to certain of the selling stockholders. The shares being registered, which were acquired from us in various transactions, are comprised of the following:

Warrants to purchase 9,000 shares of our common stock issued to Oppenheimer & Co. Inc. as partial payment for their services in connection with our issuance of the 7.0% Notes in November 2006.

308,642 shares of common stock issued to Bio-Rad in connection with the Instrument Business Sale in November 2006.

Name and Address of Beneficial Owner	Total Shares Beneficially Owned Before Offering		Number of Shares Offered (Excluding Shares Issuable Upon Exercise of Warrants)	Number of Shares Offered that are Issuable Upon Exercise of Warrants	Total Number of Shares Beneficially Owned After Offering	
	Before Offering	Owned Before Offering(1)			Offering(2)	Offering(1)(3)
Baring Global Opportunities Fund(4) 6803 South Tucson Way Centennial, CO 80112	990	*	790	632	200	*
Bio-Rad Laboratories, Inc.(5) 1000 Alfred Nobel Drive Hercules, CA 94547	308,642	4.84%	308,642			
Jeffrey Cohen(6) 133 Magnolia Lane East Hills, NY 11577	760	*		600	160	*
Frank Kee Colen(7)	42,550	*	12,000	27,850	2,700	*

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50 Riverside Drive New York, NY 10024						
Falcon Technology Partners, L.P.(8) 102 Atlee Circle Berwyn, PA 19312	402,114	6.30%	178,571	142,857	223,543	3.43%
Fort Mason Master, L.P.(9) 580 California Street, Suite 1925 San Francisco, CA 94104	178,876	2.73%		178,876		
Fort Mason Partners, L.P.(10) 580 California Street, Suite 1925 San Francisco, CA 94104	11,600	*		11,600		
Christopher Hagar(11) 135 East 57th Street, 24th Floor New York, NY 10022	610	*		450	160	*

Table of Contents

Name and Address of Beneficial Owner	Total Shares Beneficially Owned Before Offering	Percentage Beneficially Owned Before Offering(1)	Number of Shares Offered (Excluding Shares Issuable Upon Exercise of Warrants)	Number of Shares Offered that are Issuable Upon Exercise of Warrants(2)	Total Number of Shares Beneficially Owned After Offering(3)	Percentage Beneficially Owned After Offering(1)(3)
Chris Hieb(12) 845 Montgomery Street, #G San Francisco, CA 94133	300	*		300		
Highbridge International LLC(13) c/o Highbridge Capital Management LLC 9 West 57th Street 27th Floor New York, NY 10019	547,619	8.58%	547,619	438,095	358,101	4.99%
Iroquois Master Fund Ltd.(14) 641 Lexington Avenue New York, NY 10022	95,238	1.47%		95,238		
James Irvine(15) 14 Blossom Road Rumson, NJ 07760	2,750	*		2,750		
Jason Janosz(16) 325 Old North Woodward, Suite 370 Birmingham, MI 48009	660	*		500	160	*
Andrew Kaminsky(17) 4 Edgewood Drive Rye Brook, NY 10573	1,160	*		1,000	160	*
Steven Krasner(18) 400 East 57th Street, #3N New York, NY 10022	350	*		350		
Edward B. Newman(19) 11 Upper Prospect Road Atlantic Highlands, NY 07716	2,750	*		2,750		
Michael O Hare(20) 418 East 59th Street, #17B New York, NY 10022	400	*		400		
OFI Institutional Global Opportunities Fund(21)	4,090	*	3,130	2,504	960	*

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6803 South Tucson Way Centennial, CO 80112 Oppenheimer Global Opportunities Fund(22)	566,552	8.88%	434,350	347,480	132,202	1.97%
6803 South Tucson Way Centennial, CO 80112 Oppenheimer & Co. Inc.(23)	47,785	*		47,695	90	*
125 Broad Street New York, NY 10004 Phronesis Partners, L.P.(24)	1,052,029	15.54%	486,928	389,542	175,559	2.59%
180 East Broad Street, #1704 Columbus, OH 43215 Serena Puerta(25)	1,000	*		1,000		
146 West 83rd Street, #23 New York, NY 10024						

Table of Contents

Name and Address of Beneficial Owner	Total Shares Beneficially Owned		Number of Shares Offered (Excluding Shares Issuable Upon Exercise of Warrants)	Number of Shares Offered that are Issuable Upon Exercise of Warrants	Total Number of Shares Beneficially Owned	
	Before Offering	Owned Before Offering(1)			After Offering	After Offering(1)(3)
Rockmore Investment Master Fund Ltd.(26) c/o Rockmore Capital, LLC 150 East 58th Street New York, NY 10155	206,345	3.19%	111,107	95,238		
Russell Alpha Global Opportunities Fund(27) 6803 South Tucson Way Centennial, CO 80112	3,270	*	2,510	2,008	760	*
Russell Global Opportunities Fund(28) 6803 South Tucson Way Centennial, CO 80112	46,180	*	35,410	28,328	10,770	*
Stanley Stern(29) 480 Ocean Avenue Lawrence, NJ 11559	5,335	*		4,535	800	*
David I. J. Wang(30) 7575 Pelican Bay Boulevard Suite 1902 Naples, FL 34108	134,285	2.10%	35,714	28,571	70,000	1.09%
Henry Williams(31) 47 Duck Pond Road Glen Cove, NY 11542	7,025	*		4,325	2,700	*
Rida Wong(32) 300 Madison Avenue, 4th Floor New York, NY 10017	420	*		350	70	*
Sun Yung(33) 1 North Street Greenwich, CT 06830	660	*		500	160	*

* Represents beneficial ownership of less than 1%.

(1) Based on 6,380,166 shares of our common stock outstanding as of April 30, 2008.

- (2) Assumes conversion of all outstanding warrants. Because conversion of certain of the warrants is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion, a holder must, prior to the conversion of such warrants, sell such number of shares that, after the conversion of such warrants and such sale of shares, the holder and its affiliates would not beneficially own in aggregate more than 4.99% of our outstanding common stock.
- (3) Assumes all shares of common stock and shares of common stock issuable upon exercise of warrants that are offered by the selling stockholders are sold in this offering. See footnote (2) for information regarding restrictions on the conversion of certain of the warrants.
- (4) Total shares beneficially owned before offering excludes 632 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. OppenheimerFunds, Inc. is the investment advisor to Baring Global Opportunities Fund. Frank Jennings, Senior Vice President of Investments of OppenheimerFunds, Inc., exercises voting authority over the shares and warrants owned by Baring Global Opportunities Fund. Mr. Jennings disclaims beneficial ownership over the shares and warrants held by Baring Global Opportunities Fund. Baring Global

Table of Contents

Opportunities Fund is an affiliate of OppenheimerFunds Distributor, Inc. which is a limited purpose registered broker dealer. Baring Global Opportunities Fund acquired its shares and warrants in the ordinary course of business and did not, at the time it acquired such shares and warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such shares or warrants.

- (5) Bio-Rad is a publicly-held company. Bio-Rad's executive officers are responsible for running the business of the company and thus, exercise voting and investment control over the shares owned by Bio-Rad.
- (6) Total shares beneficially owned before offering includes 760 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Jeffrey Cohen is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Cohen acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (7) Total shares beneficially owned before offering includes 30,550 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 2,700 shares issuable upon conversion of warrants which are exercisable within 60 days of April 30, 2008. Mr. Colen is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Colen acquired the shares and warrants in the ordinary course of business and did not, at the time he acquired such shares and warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such shares or warrants.
- (8) Total shares beneficially owned before offering excludes 142,857 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. James L. Rathmann, the Executive Chairman of our Board of Directors, is the general partner of Falcon Technology Partners, L.P. and has sole voting and investment power over the shares and warrants held by Falcon Technology Partners, L.P.
- (9) Total shares beneficially owned before offering consist of 178,876 shares issuable upon the exercise of warrants which are exercisable within 60 days of April 30, 2008. Fort Mason Capital LLC, serves as the general partner of Fort Mason Master, L.P. and, in such capacity, exercises sole voting and investment authority over such shares and warrants. Mr. Daniel German serves as the sole managing member of Fort Mason Capital, LLC. Fort Mason Capital, LLC and Mr. German each disclaim beneficial ownership of such shares and warrants, except to the extent of its or his pecuniary interest therein.
- (10) Total shares beneficially owned before offering consist of 11,600 shares issuable upon the exercise of warrants which are exercisable within 60 days of April 30, 2008. Fort Mason Capital LLC, serves as the general partner of Fort Mason Partners, L.P. and, in such capacity, exercises sole voting and investment authority over such shares and warrants. Mr. Daniel German serves as the sole managing member of Fort Mason Capital, LLC. Fort Mason Capital, LLC and Mr. German each disclaim beneficial ownership of such shares and warrants, except to the extent of its or his pecuniary interest therein.
- (11) Total shares beneficially owned before offering includes 610 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Christopher Hagar is an employee of Merriman Curhan Ford & Co. Inc. which is a broker dealer. Christopher Hagar acquired the warrants in the ordinary course of business when he was employed by Oppenheimer & Co. Inc.

and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.

- (12) Total shares beneficially owned before offering includes 300 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Chris Hieb is an employee of Pacific Crest Securities LLC which is a broker dealer. Mr. Hieb acquired the warrants in the ordinary course of business when he was an employee of Oppenheimer & Co. Inc. and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (13) Total shares beneficially owned before offering excludes 438,095 shares issuable upon the exercise of warrants and 555,000 shares issuable upon conversion of 7.0% Notes which are not exercisable within

Table of Contents

60 days of April 30, 2008 because, in each case, conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. Total shares beneficially owned after offering includes 358,101 shares issuable upon conversion of 7.0% Notes which are exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering excludes 196,899 shares issuable upon conversion of 7.0% Notes which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. Highbridge Capital Management, LLC is the trading manager of Highbridge International LLC and has voting control and investment discretion over the securities held by Highbridge International LLC. Glenn Dubin and Henry Swieca control Highbridge Capital Management, LLC and have voting control and investment discretion over the securities held by Highbridge International LLC. Each of Highbridge Capital Management, LLC, Glenn Dubin and Henry Swieca disclaims beneficial ownership of the securities held by Highbridge International LLC.

- (14) Total shares beneficially owned before offering consist of 95,238 shares issuable upon exercise of warrants exercisable within 60 days of April 30, 2008. Joshua Silverman has sole voting and investment control over the shares and warrants owned by Iroquois Master Fund Ltd. Mr. Silverman disclaims beneficial ownership of these shares and warrants.
- (15) Total shares beneficially owned before offering includes 2,750 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. James Irvine is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Irvine acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (16) Total shares beneficially owned before offering includes 660 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Jason Janosz is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Janosz acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (17) Total shares beneficially owned before offering includes 1,160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Andrew Kaminsky is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Kaminsky acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (18) Total shares beneficially owned before offering includes 350 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Steven Krasner is a Senior Vice President of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Krasner acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (19) Total shares beneficially owned before offering includes 2,750 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Edward Newman is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Newman acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with

any person to distribute such warrants.

- (20) Total shares beneficially owned before offering includes 400 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Michael O Hare is an employee of Pacific Crest Securities LLC which is a broker dealer. Mr. O Hare acquired the warrants in the ordinary course of business when he was an employee of Oppenheimer & Co. Inc. and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (21) Total shares beneficially owned before offering excludes 2,504 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if

Table of Contents

the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. OppenheimerFunds, Inc. is the investment advisor to OFI Institutional Global Opportunities Fund. Frank Jennings, Senior Vice President of Investments of OppenheimerFunds, Inc., exercises voting authority over the shares and warrants owned by OFI Institutional Global Opportunities Fund. Mr. Jennings disclaims beneficial ownership over the shares and warrants held by OFI Institutional Global Opportunities Fund. OFI Institutional Global Opportunities Fund is an affiliate of OppenheimerFunds Distributor, Inc. which is a limited purpose registered broker dealer. OFI Institutional Global Opportunities Fund acquired its shares and warrants in the ordinary course of business and did not, at the time it acquired such shares and warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such shares or warrants.

- (22) Total shares beneficially owned before offering excludes 347,480 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. OppenheimerFunds, Inc. is the investment advisor to Oppenheimer Global Opportunities Fund. Frank Jennings, Senior Vice President of Investments of OppenheimerFunds, Inc., exercises voting authority over the shares and warrants owned by Oppenheimer Global Opportunities Fund. Mr. Jennings disclaims beneficial ownership over the shares and warrants held by Oppenheimer Global Opportunities Fund. Oppenheimer Global Opportunities Fund is an affiliate of OppenheimerFunds Distributor, Inc. which is a limited purpose registered broker dealer. Oppenheimer Global Opportunities Fund acquired its shares and warrants in the ordinary course of business and did not, at the time it acquired such shares and warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such shares or warrants.
- (23) Total shares beneficially owned before offering includes 47,785 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008, 90 of which are held by Oppenheimer & Co. Inc. Pool. Total shares beneficially owned after offering includes 90 shares issuable upon the exercise of warrants held by Oppenheimer & Co. Inc. Pool which are exercisable within 60 days of April 30, 2008. Albert G. Lowenthal and Dennis McNamara exercise shared voting and investment power over the warrants held by Oppenheimer & Co. Inc. and the Oppenheimer & Co. Inc. Pool. Oppenheimer & Co. Inc. received warrants to purchase 92,100 shares of our common stock as partial payment for its services as placement agent in connection with our private placement which closed on August 29, 2007 and subsequently transferred 53,405 of such warrants to certain of its employees. Oppenheimer & Co. Inc. is a broker dealer. Oppenheimer & Co. Inc. acquired the warrants in the ordinary course of business and did not, at the time it acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (24) Total shares beneficially owned before offering includes 389,542 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. James E. Wiggins is the general partner of Phronesis Partners, L.P. and exercises sole voting and investment control over the shares and warrants owned by Phronesis Partners, L.P.
- (25) Total shares beneficially owned before offering includes 1,000 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Serena Puerta is a former employee of Oppenheimer & Co. Inc.
- (26) Total shares beneficially owned before offering includes 95,238 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Rockmore Capital, LLC, referred to herein as Rockmore Capital, and Rockmore Partners, LLC, referred to herein as Rockmore Partners, each a limited liability company formed under the laws of the State of Delaware, serve as the investment manager and general partner, respectively, to Rockmore Investments (US) LP, a Delaware limited partnership, which invests all of its assets

through Rockmore Investment Master Fund Ltd., an exempted company formed under the laws of Bermuda, referred to herein as Rockmore Master Fund. By reason of such relationships, Rockmore Capital and Rockmore Partners may be deemed to share dispositive power over the shares and warrants owned by Rockmore Master Fund. Rockmore Capital and Rockmore Partners disclaim beneficial ownership of such shares and warrants. Rockmore Partners has delegated authority to Rockmore Capital regarding the portfolio management decisions with respect to the shares and warrants

Table of Contents

owned by Rockmore Master Fund and, as of April 30, 2008, Mr. Bruce T. Bernstein and Mr. Brian Daly, as officers of Rockmore Capital, are responsible for the portfolio management decisions of the shares and warrants owned by Rockmore Master Fund. By reason of such authority, Messrs. Bernstein and Daly may be deemed to share dispositive power over the shares and warrants owned by Rockmore Master Fund. Messrs. Bernstein and Daly disclaim beneficial ownership of such shares and warrants and neither of such persons has any legal right to maintain such authority. No other person has sole or shared voting or dispositive power with respect to the shares and warrants as those terms are used for purposes under Regulation 13D-G of the Exchange Act. No person or group (as that term is used in Section 13(d) of the Exchange Act or the Regulation 13D-G) controls Rockmore Master Fund.

- (27) Total shares beneficially owned before offering excludes 2,008 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. OppenheimerFunds, Inc. is the sub-advisor to Russell Alpha Global Opportunities Fund. Frank Jennings, Senior Vice President of Investments of OppenheimerFunds, Inc., exercises voting authority over the shares and warrants owned by Russell Alpha Global Opportunities Fund. Mr. Jennings disclaims beneficial ownership over the shares and warrants held by Russell Alpha Global Opportunities Fund.
- (28) Total shares beneficially owned before offering excludes 28,328 shares issuable upon the exercise of warrants which are not exercisable within 60 days of April 30, 2008 because conversion is not permitted if the holder and its affiliates would beneficially own in aggregate more than 4.99% of our outstanding common stock following such conversion. OppenheimerFunds, Inc. is the sub-advisor to Russell Global Opportunities Fund. Frank Jennings, Senior Vice President of Investments of OppenheimerFunds, Inc., exercises voting authority over the shares and warrants owned by Russell Global Opportunities Fund. Mr. Jennings disclaims beneficial ownership over the shares and warrants held by Russell Global Opportunities Fund.
- (29) Total shares beneficially owned before offering includes 5,335 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 800 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Stanley Stern is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Stern acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (30) Total shares beneficially owned before offering includes 28,571 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008.
- (31) Total shares beneficially owned before offering includes 7,025 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 2,700 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Henry Williams is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Williams acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.
- (32) Total shares beneficially owned before offering includes 420 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 70 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Rida Wong is a vice president of Oppenheimer & Co. Inc. which is a broker dealer. Ms. Wong acquired the warrants in the ordinary course of business and did not, at the time she acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.

- (33) Total shares beneficially owned before offering includes 660 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Total shares beneficially owned after offering includes 160 shares issuable upon the exercise of warrants exercisable within 60 days of April 30, 2008. Sun Yung is a managing director of Oppenheimer & Co. Inc. which is a broker dealer. Mr. Yung acquired the warrants in the ordinary course of business and did not, at the time he acquired such warrants, have any agreement or understanding, directly or indirectly, with any person to distribute such warrants.

Table of Contents

PLAN OF DISTRIBUTION

We are registering the shares offered by this prospectus on behalf of the selling stockholders. The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. To the extent any of the selling stockholders gift, pledge or otherwise transfer the shares offered hereby, such transferees may offer and sell the shares from time to time under this prospectus, provided that this prospectus has been amended under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended, referred to herein as the Securities Act, to include the name of such transferee in the list of selling stockholders under this prospectus.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

short and long sales;

through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of sale; and

any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

Table of Contents

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering. Upon any exercise of the warrants by payment of cash, however, we will receive the exercise price of the warrants.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule.

The selling shareholders might be, and any broker-dealers that act in connection with the sale of securities will be, deemed to be underwriters within the meaning of Section 2(11) of the Securities Act, and any commissions received by such broker-dealers and any profit on the resale of the securities sold by them while acting as principals will be deemed to be underwriting discounts or commissions under the Securities Act. Any broker-dealer and any selling stockholders that may be deemed to be an underwriter within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act. We will make copies of this prospectus available to the selling stockholders and have informed them of their obligation to deliver copies of this prospectus to purchasers at or before the time of any sale of shares covered by this prospectus. Such requirement may be satisfied by delivery through the facilities of the NASDAQ Stock Market pursuant to Rule 153 under the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

As of April 30, 2008, we were authorized to issue up to 150,000,000 shares of common stock and 5,000,000 shares of preferred stock under our Third Amended and Restated Certificate of Incorporation.

Common Stock

As of April 30, 2008, there were 6,380,166 shares of common stock outstanding, 447,769 shares of common stock issuable upon the exercise of outstanding stock options, 2,293,147 shares of common stock issuable upon the exercise of warrants to purchase common stock, 27,208 shares of common stock issuable upon the conversion of the 4.5% Notes and 825,000 shares of common stock issuable upon the conversion of the 7.0% Notes.

Each holder of common stock is entitled to one vote for each share on all matters to be voted upon by the stockholders and there are no cumulative voting rights. Subject to preferences to which holders of preferred stock may be entitled, holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by the Board of Directors out of funds legally available therefor. In the event of a liquidation, dissolution or winding up of the Company, holders of common stock would be entitled to share in our assets remaining after the payment of liabilities and the satisfaction of any liquidation preference granted the holders of any outstanding shares of preferred stock. Holders of common stock have no preemptive or conversion rights or other subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. All outstanding shares of common stock are, and the shares of common stock offered by us in this offering, when issued and paid for will be, fully paid and nonassessable. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock which we may designate in the future.

Stockholder Rights Plan

We adopted a stockholder rights plan, the purpose of which is, among other things, to enhance the ability of the Board of Directors to protect stockholder interests and to ensure that stockholders receive fair treatment in the event any coercive takeover attempt of the Company is made in the future. The stockholder rights plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, the Company or a large block of the Company's common stock.

The rights issued pursuant to our stockholder rights plan will become exercisable the tenth day after a person or group announces acquisition of 15% or more of our common stock or announces commencement of a tender or exchange offer the consummation of which would result in ownership by the person or group of 15% or more of our common stock. If the rights become exercisable, the holders of the rights (other than the person acquiring 15% or more of our common stock) will be entitled to acquire, in exchange for the rights' exercise price, shares of our common stock or shares of any company in which the Company is merged, with a value equal to twice the rights' exercise price.

Preferred Stock

As of April 30, 2008, there were no shares of our preferred stock outstanding.

Our Board of Directors is authorized, subject to any limitations prescribed by law, without stockholder approval, to issue from time to time up to an aggregate of 5,000,000 shares of preferred stock, in one or more series, each of such series to have such rights and preferences, including voting rights, dividend rights, conversion rights, redemption

privileges and liquidation preferences as shall be determined by the Board of Directors. The rights for the holders of common stock will be subject to, and may be adversely affected by, the rights of holders of any preferred stock that may be issued in the future. Issuance of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, a majority of the outstanding voting stock of us. We have no present plans to issue any shares of preferred stock.

Table of Contents

Warrants

As of April 30, 2008, warrants to purchase 2,293,147 shares of common stock at exercise prices ranging from \$9.25 to \$25.00 were outstanding, with a weighted exercise price of \$10.79 per share. All outstanding warrants contain provisions for the adjustment of the exercise price in the event of stock dividends, stock splits, reorganizations, reclassifications or mergers. In addition, certain of the warrants contain anti-dilution provisions and a cashless exercise feature that allows the holders thereof to exercise the warrants without a cash payment to us under certain circumstances. The rights of the shares of common stock issuable upon exercise of all of our outstanding warrants shall be the same as those described under Common Stock above.

Convertible Notes

As of April 30, 2008 we had outstanding \$16,500,000 principal amount of the 7.0% Notes and \$2,500,000 principal amount of the 4.5% Notes. The 7.0% Notes are convertible into shares of our common stock at a conversion rate of 50 shares per \$1,000 aggregate principal amount of notes, which is equal to a conversion price of \$20.00 per share. Notwithstanding the foregoing, any holder of 7.0% Notes who (together with such holder's affiliates) owns more than \$10,000,000 aggregate principal amount of 7.0% Notes is not permitted to convert its notes to the extent that, after giving effect to such conversion, such holder (together with such holder's affiliates) would beneficially own in excess of 4.99% of the total number of shares of our common stock outstanding immediately after giving effect to such conversion. The 4.5% Notes are convertible, at the option of the holder, at any time on or prior to maturity of such notes into shares of the Company's common stock initially at a conversion rate of 10.88329 shares per \$1,000 principal amount of 4.5% Notes, which is equal to a conversion price of \$91.88 per share. The conversion prices of the 7.0% Notes and the 4.5% Notes, and hence the respective conversion rates, is subject to adjustment upon the occurrence of certain events, such as stock splits, stock dividends and other distributions or recapitalizations.

Registration Rights

The registration statement of which this prospectus is a part covers the resale of (i) 1,848,129 shares of our common stock and 1,847,324 shares of our common stock issuable upon the exercise of warrants issued in a private placement that closed on August 29, 2007, (ii) 308,642 shares of our common stock issued to Bio-Rad in connection with the Instrument Business Sale in November 2006 and (iii) 9,000 shares of our common stock issuable upon the exercise of warrants that were issued to Oppenheimer & Co. Inc. in connection with our sale of the 7.0% Notes in November 2006.

We are obligated to file this registration statement and we have undertaken to use best efforts to keep it effective, generally through the date that these shares are freely tradable under Rule 144(k) under the Securities Act.

Pursuant to the terms of the warrants held by certain employees of Oppenheimer & Co. Inc., we may be required to register the 15,345 shares of our common stock underlying such warrants. The warrants were originally granted to Oppenheimer & Co. Inc. in connection with our private placement that closed on August 29, 2007 and subsequently transferred to such employees.

In addition, pursuant to our stock purchase agreement with Quest dated as of July 22, 2005, we granted Quest demand registration rights and piggy back registration rights with respect to the shares of our common stock underlying warrants held by Quest.

In connection with the Instrument Business Sale, we granted to Bio-Rad piggyback registration rights exercisable until November 13, 2008 any time the Company proposes to file with the SEC a registration statement relating to an offering of any of its securities for its own account or the account of security holders exercising their demand

registration rights (other than on Form S-4 or Form S-8 or their then equivalents relating to securities to be issued solely in connection with an acquisition of any entity or business or equity securities issuable in connection with stock option or other employee benefit plans). Bio-Rad is exercising its registration rights with respect to all of its shares of common stock in connection with the filing of the registration statement of which this prospectus is a part.

Table of Contents

Section 203 of the Delaware Corporation Law

Section 203 of the General Corporation Law of the State of Delaware, or DGCL, prevents an interested stockholder (defined in Section 203 of the DGCL, generally, as a person owning 15% or more of a corporation's outstanding voting stock), from engaging in a business combination (as defined in Section 203 of the DGCL) with a publicly-held Delaware corporation for three years following the date such person became an interested stockholder, unless:

before such person became an interested stockholder, the board of directors of the corporation approved the transaction in which the interested stockholder became an interested stockholder or approved the business combination;

upon consummation of the transaction that resulted in the interested stockholder's becoming an interested stockholder, the interested stockholder owns at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced (excluding stock held by directors who are also officers of the corporation and by employee stock plans that do not provide employees with the rights to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); or

following the transaction in which such person became an interested stockholder, the business combination is approved by the board of directors of the corporation and authorized at a meeting of stockholders by the affirmative vote of the holders of two-thirds of the outstanding voting stock of the corporation not owned by the interested stockholder.

The provisions of Section 203 of the DGCL could make a takeover of our company difficult.

Effect of Certain Provisions of our Certificate of Incorporation and Bylaws

Certain provisions of our Second Amended and Restated Certificate of Incorporation and Bylaws may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from attempting to acquire, control of us. Such provisions could limit the price that certain investors might be willing to pay in the future for shares of our common stock. Our Bylaws eliminate the right of stockholders to call special meetings of stockholders or to act by written consent without a meeting and require advance notice for stockholder proposals and director nominations, which may preclude stockholders from bringing matters before an annual meeting of stockholders or from making nominations for directors at an annual meeting of stockholders. The authorization of undesignated preferred stock makes it possible for the Board of Directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of us. The amendment of any of these provisions would require approval by holders of at least 66 $\frac{2}{3}$ % of our outstanding common stock.

Limitation of Liability

Section 145 of the DGCL provides a detailed statutory framework covering indemnification of officers and directors against liabilities and expenses arising out of legal proceedings brought against them by reason of their being or having been directors or officers. Section 145 generally provides that a director or officer of a corporation:

- (i) shall be indemnified by the corporation for all expenses of such legal proceedings when he is successful on the merits;
- (ii) may be indemnified by the corporation for the expenses, judgments, fines and amounts paid in settlement of such proceedings (other than a derivative suit), even if he is not successful on the merits, 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 corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful; and

Table of Contents

- (iii) may be indemnified by the corporation for the expenses of a derivative suit (a suit by a stockholder alleging a breach by a director or officer of a duty owed to the corporation), even if he is not successful on the merits, 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 corporation.

The indemnification discussed in clauses (ii) and (iii) above may be made only upon a determination that indemnification is proper because the applicable standard of conduct has been met. Such a determination may be made by a majority of a quorum of disinterested directors, independent legal counsel, the stockholders or a court of competent jurisdiction. The indemnification discussed in clause (iii) above may not apply, however, if the director or officer is adjudged liable for negligence or misconduct in the performance of his duties to the corporation, unless the corporation determines that despite such adjudication, but in view of all the circumstances, he is entitled to indemnification.

Article VII of our Third Amended and Restated Certificate of Incorporation and Article VI of our Bylaws provide in substance that, to the fullest extent permitted by the DGCL, each director and officer shall be indemnified against reasonable costs and expenses, including attorney's fees, and any liabilities which he may incur in connection with any action to which he may be made a party by reason of his being or having been a director or officer of our company, a predecessor of our company, or serves or served as a director, officer or employee of another enterprise at the request of our company or any predecessor of our company. The indemnification provided by our certificate of incorporation is not deemed exclusive of or intended in any way to limit any other rights to which any person seeking indemnification may be entitled. Section 102(b)(7) of the DGCL permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability

for any breach of the director's duty of loyalty to the corporation or its stockholders,

for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law,

under Section 174 of the DGCL, or

for any transaction from which the director derived an improper personal benefit.

Article VII of our Third Amended and Restated Certificate of Incorporation provides for the elimination of personal liability of a director for monetary damages for breach of fiduciary duty, as permitted by Section 102(b)(7) of the DGCL. We maintain liability insurance on our officers and directors against liabilities that they may incur in such capacities.

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

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Wells Fargo Shareowner Services.

Listing

Currently, our shares are traded on the NASDAQ Capital Market, under the symbol **VRML**.

Table of Contents

LEGAL MATTERS

Paul, Hastings, Janofsky & Walker LLP, Palo Alto, California, will pass upon the validity of the shares of common stock being registered by the registration statement of which this prospectus is a part.

EXPERTS

The consolidated financial statements incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2007 have been so incorporated in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION ABOUT US

We file annual, quarterly and special reports, proxy statements and other information with the Securities and Exchange Commission. You may read and copy any document we file at the SEC's Public Reference Rooms in Washington, D.C., New York, New York and Chicago, Illinois. The Public Reference Room in Washington, D.C. is located at 450 Fifth Street, N.W. Please call the SEC at 1-800-SEC-0330 for further information on the public conference rooms. Our SEC filings are also available to the public from the SEC's web site at www.sec.gov.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act for the registration of the common stock offered by this prospectus. This prospectus, which is a part of the registration statement, does not contain all of the information included in the registration statement. Any statement made in this prospectus concerning the contents of any contract, agreement or other document is not necessarily complete. For further information regarding our company and the common stock offered by this prospectus, please refer to the registration statement, including the exhibits and schedules thereto. If we have filed any contract, agreement or other document as an exhibit to the registration statement, you should read the exhibit for a more complete understanding of the documents of matter involved.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those filed 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.

The following documents, which have been filed with the SEC, are hereby incorporated by reference into this prospectus:

Our annual report on Form 10-K for the year ended December 31, 2007 filed on March 31, 2008;

Our definitive proxy statement dated April 24, 2008, relating to our June 2008 annual meeting of stockholders, filed on April 24, 2008;

Our quarterly report on Form 10-Q for the three months ended March 31, 2008 filed on May 15, 2008;

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Our current reports on Form 8-K filed on January 11, 2008, February 21, 2008, February 27, 2008, March 3, 2008, March 31, 2008, April 11, 2008 and April 17, 2008; and

The description of our common stock included in our Form 8-A filed on September 22, 2000 and any amendment or report filed with the SEC for purposes of updating such description.

All other reports and documents subsequently filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act after the date of this prospectus and prior to the termination of the offering are deemed incorporated by reference into this prospectus and a part hereof from the date of filing of those documents. Any statement contained in any document incorporated by reference shall be deemed to be

Table of Contents

modified or superseded for the purposes of this prospectus to the extent that a statement contained in a later document modifies or supersedes such statement. Any statements so modified or superseded shall not be deemed to constitute a part of this prospectus, except as modified or superseded.

We will provide without charge to each person, including to any beneficial owner, to whom this prospectus is delivered, upon written or oral request of such person, a copy of any or all of the documents referred to above which have been or may be incorporated by reference into this prospectus but not delivered with the prospectus. Requests for such documents should be made by writing or telephoning us at the following address or telephone number:

Vermillion, Inc.
6611 Dumbarton Circle
Fremont, California 94555
(510) 505-2100

You should rely only on the information incorporated by reference or provided in this prospectus or the prospectus supplement. We have authorized no one to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or the prospectus supplement is accurate as of any date other than the date on the front of the document.

No person has been authorized to give any information or to make any representations other than those contained in this prospectus in connection with our recent convertible debt offering made hereby, and if given or made, such information or representations must not be relied upon as having been authorized by us, any selling stockholder or by any other person. Neither the delivery of this prospectus nor any sale made hereunder shall, under any circumstances, create any implication that information herein is correct as of any time subsequent to the date hereof. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any security other than the securities covered by this prospectus, nor does it constitute an offer to or solicitation of any person in any jurisdiction in which such offer or solicitation may not lawfully be made.

Table of Contents

4,013,095 Shares

Vermillion, Inc.

Common Stock

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PROSPECTUS

We have not authorized any dealer, salesperson or other person to give any information or to make any representations not contained or incorporated by reference in this prospectus or any prospectus supplement. You must not rely on any unauthorized information. This prospectus is not an offer to sell these securities in any jurisdiction where an offer or sale is not permitted. The information in this prospectus is current as of the date of this prospectus. You should not assume that this prospectus is accurate as of any other date.

May 28, 2008