# UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

# **FORM 10-Q**

X	QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SEC	CURITIES EXCHANGE ACT OF 1934	
	For the quarterly period ende	ded June 30, 2010	
	Or		
	TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECU	URITIES EXCHANGE ACT OF 1934	
	For the transition period from	to .	
	Commission File Number	er: 000-21088	
	VICAL INCOR	PORATED	
	(Exact name of registrant as sp.		
	Delaware (State or other jurisdiction of incorporation or organization)	93-0948554 (I.R.S. Employer Identification I	No.)
	10390 Pacific Center Court San Diego, California (Address of principal executive offices)	92121 (Zip code)	
	(858) 646-110 (Registrant's telephone number, i		
	(Former name, former address and former fiscal	al year, if changed since last report)	
	Indicate by check mark whether the registrant (1) has filed all reports required to be filed aligned 12 months (or for such shorter period that the registrant was required to file such repays. Yes $\boxtimes$ No $\square$		
	Indicate by check mark whether the registrant has submitted electronically and posted ditted and posted pursuant to Rule 405 of Regulation S-T ( $\S232.405$ ) during the preceding sost such files). Yes $\square$ No $\square$		
of "la	Indicate by check mark whether the registrant is a large accelerated filer, an accelerated arge accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2		ompany. See the definition
	Large accelerated filer □ Accelerated filer ⊠ Non-accelerated filer □ S	Smaller reporting company □	
	Indicate by check mark whether the registrant is a shell company (as defined in Rule 12	2b-2 of the Exchange Act). Yes □ No ⊠	
	Indicate the number of shares outstanding of each of the issuer's classes of common sto	ock, as of the latest practicable date.	
	Total shares of common stock outstanding at July 31, 2010; 56,245,897		

# VICAL INCORPORATED

# FORM 10-Q

# INDEX

PART I. FINANCIAL INFORMATION	
ITEM 1. Financial Statements	
Balance Sheets (unaudited) as of June 30, 2010, and December 31, 2009	3
Statements of Operations (unaudited) for the three and six months ended June 30, 2010 and 2009	4
Statements of Cash Flows (unaudited) for the six months ended June 30, 2010 and 2009	5
Notes to Financial Statements (unaudited)	6
ITEM 2. Management's Discussion and Analysis of Financial Condition and Results of Operations	12
ITEM 3. Quantitative and Qualitative Disclosures About Market Risk	21
ITEM 4. Controls and Procedures	22
PART II. OTHER INFORMATION	
ITEM 1A. Risk Factors	22
ITEM 6. Exhibits	32
<u>SIGNATURE</u>	33

# PART I. FINANCIAL INFORMATION

# ITEM 1. FINANCIAL STATEMENTS

# VICAL INCORPORATED BALANCE SHEETS (In thousands, except par value data) (Unaudited)

	June 30, 2010	December 31, 2009
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 12,339	\$ 25,873
Marketable securities, available-for-sale	19,280	18,385
Restricted cash	2,827	2,827
Receivables and other	1,153	1,349
Total current assets	35,599	48,434
Long-term investments	5,450	5,477
Property and equipment, net	8,442	9,260
Intangible assets, net	3,497	3,743
Other assets	458	458
Total assets	\$ 53,446	\$ 67,372
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable and accrued expenses	\$ 6,153	\$ 8,020
Deferred revenue	753	1,990
Total current liabilities	6,906	10,010
Long-term liabilities:		
Deferred rent	2,310	2,380
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.01 par value, 5,000 shares		
authorized, none issued and outstanding	_	
Common stock, \$0.01 par value, 160,000 shares authorized,		
56,237 shares issued and outstanding at June 30, 2010, and		
80,000 shares authorized, 53,781 shares issued and outstanding		
at December 31, 2009	562	538
Additional paid-in capital	347,431	341,302
Accumulated deficit	(304,228)	(287,370)
Accumulated other comprehensive gain	465	512
Total stockholders' equity	44,230	54,982
Total liabilities and stockholders' equity	\$ 53,446	\$ 67,372

See accompanying notes to unaudited financial statements

# VICAL INCORPORATED STATEMENTS OF OPERATIONS (In thousands, except per share data) (Unaudited)

		Three Months Ended June 30,		hs Ended e 30,
	2010	2009	2010	2009
Revenues:				
Contract and grant revenue	\$ 1,379	\$ 352	\$ 1,965	\$ 730
License and royalty revenue	696	3,626	1,573	5,498
Total revenues	2,075	3,978	3,538	6,228
Operating expenses:				
Research and development	4,963	5,655	10,065	11,876
Manufacturing and production	3,431	2,244	6,236	4,688
General and administrative	2,186	1,886	4,371	3,787
Total operating expenses	10,580	9,785	20,672	20,351
Loss from operations	(8,505)	(5,807)	(17,134)	(14,123)
Other income (expense):				
Investment and other income (expense), net	125	(212)	276	(139)
Interest expense		(1)		(2)
Net loss	\$ (8,380)	\$ (6,020)	\$(16,858)	\$(14,264)
Basic and diluted net loss per share	\$ (0.15)	\$ (0.14)	\$ (0.30)	\$ (0.34)
Weighted average shares used in computing basic and diluted net loss per share	56,369	44,374	55,845	42,439

See accompanying notes to unaudited financial statements

# VICAL INCORPORATED STATEMENTS OF CASH FLOWS

(In thousands) (Unaudited)

	Six Month June	
	2010	2009
Cash flows from operating activities:		
Net loss	\$(16,858)	\$(14,264)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,400	1,339
Other than temporary loss on marketable securities and other assets	_	405
Write-off of abandoned patents		66
Gain on sale of property and equipment	_	(2)
Compensation expense related to stock options and awards	1,286	736
Changes in operating assets and liabilities:		
Receivables and other	196	(440)
Accounts payable, accrued expenses and other liabilities	(1,909)	(303)
Deferred revenue	(1,237)	1,338
Deferred rent	(28)	(7)
Net cash used in operating activities	(17,150)	(11,132)
Cash flows from investing activities:		
Maturities of marketable securities – including restricted	16,942	7,313
Purchases of marketable securities – including restricted	(17,857)	(14,193)
Purchases of property and equipment	(199)	(27)
Sale of property and equipment	_	2
Patent expenditures	(137)	(178)
Net cash used in investing activities	(1,251)	(7,083)
Cash flows from financing activities:		
Net proceeds from issuance of common stock	4,937	18,870
Payment of withholding taxes for net settlement of restricted stock units	(70)	(18)
Principal payments under equipment financing obligations	<u></u> _	(113)
Net cash provided by financing activities	4,867	18,739
Net (decrease) increase in cash and cash equivalents	(13,534)	524
Cash and cash equivalents at beginning of period	25,873	23,761
Cash and cash equivalents at end of period	\$ 12,339	\$ 24,285

See accompanying notes to unaudited financial statements

# VICAL INCORPORATED NOTES TO FINANCIAL STATEMENTS June 30, 2010 (Unaudited)

#### 1. GENERAL

Vical Incorporated, or the Company, a Delaware corporation, was incorporated in April 1987 and has devoted substantially all of its resources since that time to its research and development programs. The Company researches and develops biopharmaceutical products based on its patented DNA delivery technologies for the prevention and treatment of serious or life-threatening diseases.

All of the Company's potential products are in research and development phases. No revenues have been generated from the sale of any such products, nor are any such revenues expected for at least the next several years. The Company earns revenue from research and development agreements with pharmaceutical collaborators and grant and contract arrangements with government entities. Most product candidates will require significant additional research and development efforts, including extensive preclinical and clinical testing. All product candidates that advance to clinical testing will require regulatory approval prior to commercial use, and will require significant costs for commercialization. There can be no assurance that the Company's research and development efforts, or those of its collaborators, will be successful. The Company expects to continue to incur substantial losses and not generate positive cash flows from operations for at least the next several years. No assurance can be given that the Company can generate sufficient product revenue to become profitable or generate positive cash flows from operations.

The unaudited financial statements at June 30, 2010, and for the three and six months ended June 30, 2010 and 2009, have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission, or SEC, and with accounting principles generally accepted in the United States applicable to interim financial statements. These unaudited financial statements have been prepared on the same basis as the audited financial statements and include all adjustments, consisting of only normal recurring accruals, which in the opinion of management are necessary to present fairly the Company's financial position as of the interim date and results of operations for the interim periods presented. Interim results are not necessarily indicative of results for a full year or future periods. The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. These unaudited financial statements should be read in conjunction with the Company's audited financial statements for the year ended December 31, 2009, included in its Annual Report on Form 10-K filed with the SEC.

#### Cash, Cash Equivalents and Marketable Securities

Cash and cash equivalents consist of cash and highly liquid securities with original maturities at the date of acquisition of ninety days or less. Investments with an original maturity of more than ninety days are considered marketable securities and have been classified by management as available-for-sale. Such investments are carried at fair value, with unrealized gains and losses included as a separate component of stockholders' equity. Realized gains and losses from the sale of available-for-sale securities or the amounts reclassified out of accumulated other comprehensive income, if any, are determined on a specific identification basis.

#### Restricted Cash

The Company is required to maintain a letter of credit securing an amount equal to twelve months of the current monthly installment of base rent for the term of its primary facilities lease, which ends in August 2017. Under certain circumstances the Company may be able to eliminate the need for the letter of credit. At each of June 30, 2010, and December 31, 2009, restricted cash of \$2.8 million was pledged as collateral for this letter of credit.

#### Revenue Recognition

Revenue is recognized when the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

#### Contract and Grant Revenue

The Company's contract manufacturing arrangements typically require the delivery of multiple lots of clinical vaccines. The Company analyzes its multiple element arrangements to determine whether the elements can be separated and accounted for individually as separate units of accounting. The evaluation is performed at the inception of the arrangement. The delivered item(s) is considered a separate unit of accounting if all of the following criteria are met: (1) the delivered item(s) has value to the customer on a standalone basis; (2) there is objective and reliable evidence of the fair value of the undelivered item(s); and (3) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered probable and substantially in the Company's control. If the delivered item does not have standalone value or the Company does not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered item is deferred.

The Company recognizes revenues from contract services and federal government research grants during the period in which the related expenditures are incurred and related payments for those services are received or collection is reasonably assured.

# License and Royalty Revenue

The Company's license and royalty revenues are generated through agreements with strategic partners. Nonrefundable, up-front license fees and milestone payments with standalone value that are not dependent on any future performance by the Company under the agreements are recognized as revenue upon the earlier of when payments are received or collection is assured, but are deferred if the Company has continuing performance obligations. If the Company has continuing involvement through contractual obligations under such agreements, such up-front fees are deferred and recognized over the period for which the Company continues to have a performance obligation, unless all of the following criteria exist: (1) the delivered item(s) have standalone value to the customer, (2) there is objective and reliable evidence of the fair value of the undelivered item(s), and (3) delivery or performance is probable and within the Company's control for any items that have a right of return.

The Company recognizes royalty revenues from licensed products when earned in accordance with the terms of the license agreements. Net sales figures used for calculating royalties include deductions for costs of returns, cash discounts, and freight and warehousing, which may vary over the course of the license agreements. Payments received related to milestones are recognized as revenue upon the achievement of the milestones as specified in the underlying agreements, which represent the culmination of the earnings process.

#### Net Loss Per Share

Basic and diluted net loss per share has been computed using the weighted-average number of shares of common stock outstanding during the period. The weighted average number of shares used to compute diluted loss per share excludes any assumed exercise of stock options and warrants, and the assumed issuance of common stock under restricted stock units, or RSUs, as the effect would be antidilutive. Common stock equivalents of 0.8 million and 0.3 million for the three months ended June 30, 2010 and 2009, respectively, were excluded from the calculation because of their antidilutive effect. Common stock equivalents of 0.8 million and 0.2 million for the six months ended June 30, 2010 and 2009, respectively, were excluded from the calculation because of their antidilutive effect.

#### Restructuring Costs

During the fourth quarter of 2008, the Company announced a work force reduction of 29 employees. The restructuring was designed to preserve capital and focus the Company's efforts on its most advanced product development programs. As a result of the restructuring the Company incurred a charge for one-time termination benefits of \$0.8 million in 2008. Approximately \$0.4 million of the charge was paid out during 2008 and the remainder was paid out during the three months ended March 31, 2009.

#### Facility Consolidation

On January 30, 2009, the Company consolidated its operations into its main facility. The facility that the Company abandoned in the consolidation previously housed portions of the Company's research and development activities. In January 2009, the Company incurred excess lease costs of \$0.4 million which were recorded as restructuring costs and included in research and development expense. Estimated excess lease costs are based on assumptions of differences between lease payments and estimated sublease receipts that could be realized on potential subleases. The lease expired in November 2009.

# Recent Accounting Pronouncements

In September 2009, the FASB issued authoritative guidance regarding multiple-deliverable revenue arrangements. This guidance addresses how to separate deliverables and how to measure and allocate consideration to one or more units of accounting. Specifically, the guidance requires that consideration be allocated among multiple deliverables based on relative selling prices. The guidance establishes a selling price hierarchy of (1) vendor-specific objective evidence, (2) third-party evidence and (3) estimated selling price. This guidance is effective for annual periods beginning after June 15, 2010, but may be adopted earlier as of the beginning of an annual period. The Company is currently evaluating the effect, if any, that this guidance will have on its financial position and results of operations.

#### 2. STOCK-BASED COMPENSATION

Total stock-based compensation expense was allocated to research and development, manufacturing and production and general and administrative expense as follows (in thousands):

		Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009	
Research and development	\$ 191	\$ 110	\$ 354	\$ 227	
Manufacturing and production	76	40	148	85	
General and administrative	420	203	784	424	
Total stock-based compensation expense	\$ 687	\$ 353	\$ 1,286	\$ 736	

During the six months ended June 30, 2010 and 2009, the Company granted stock-based awards with a total estimated value of \$4.4 million and \$1.6 million, respectively. At June 30, 2010, total unrecognized estimated compensation expense related to unvested stock-based awards granted prior to that date was \$4.0 million, which is expected to be recognized over a weighted-average period of 1.5 years. Stock-based awards granted during the six months ended June 30, 2010 and 2009, were equal to 3.7% and 3.2%, respectively, of outstanding shares of common stock at the end of each period.

#### 3. COMPREHENSIVE LOSS

Comprehensive loss consists of net loss and certain changes in equity that are excluded from net loss. Accumulated other comprehensive gain (loss) represents net unrealized gain (loss) on marketable securities. For the three months ended June 30, 2010 and 2009, other comprehensive gain (loss) was \$(0.1) million and \$0.4 million, respectively, and total comprehensive loss was \$8.5 million and \$5.6 million, respectively. For the six months ended June 30, 2010 and 2009, other comprehensive gain (loss) was \$(48,000) and \$0.4 million, respectively, and total comprehensive loss was \$16.9 million and \$13.9 million, respectively.

# 4. OTHER BALANCE SHEET ACCOUNTS

Accounts payable and accrued expenses consisted of the following (in thousands):

		December
	June 30,	31,
	2010	2009
Clinical trial accruals	\$2,904	\$ 3,679
Employee compensation	1,583	2,569
Accounts payable	788	967
Other accrued liabilities	878	805
Total accounts payable and accrued expenses	\$6,153	\$ 8,020

# 5. COMMITMENTS AND CONTINGENCIES

The Company prosecutes its intellectual property estate vigorously to obtain the broadest valid scope for its patents. Due to uncertainty of the ultimate outcome of these matters, their impact on future operating results or the Company's financial condition is not subject to reasonable estimates.

In the ordinary course of business, the Company may become a party to lawsuits involving various matters. The Company is unaware of any such lawsuits presently pending against it which, individually or in the aggregate, are deemed to be material to the Company's financial condition or results of operations.

# 6. SHORT-TERM MARKETABLE SECURITIES

The following is a summary of short-term marketable securities classified as available-for-sale (in thousands):

Amortized	Unrealized	Unrealized	Market
Cost	Gain	Loss	Value
\$ 4,007	\$ —	\$ 1	\$ 4,006
13,010	_	_	13,010
2,265		1	2,264
\$ 19,282	<u> </u>	\$ 2	\$19,280
Amortized Cost	Unrealized Gain	Unrealized Loss	Market Value
\$ 5,519	\$ 22	\$ —	\$ 5,541
9,583	3	_	9,586
1,000	_	1	999
2,264		5	2,259
\$ 18,366	\$ 25	\$ 6	\$18,385
	\$ 4,007 13,010 2,265 \$ 19,282 Amortized Cost \$ 5,519 9,583 1,000 2,264	Cost         Gain           \$ 4,007         \$ —           13,010         —           2,265         —           \$ 19,282         \$ —    Amortized Cost Gain  \$ 5,519 \$ 22 9,583 3 1,000 — 2,264 ——	Cost         Gain         Loss           \$ 4,007         \$ —         \$ 1           13,010         —         —           2,265         —         1           \$ 19,282         \$ —         \$ 2           Amortized Cost         Unrealized Gain         Unrealized Loss           \$ 5,519         \$ 22         \$ —           9,583         3         —           1,000         —         1           2,264         —         5

At June 30, 2010, none of these securities mature outside of one year. The Company did not realize any gains or losses on sales of available-for-sale securities for the three and six months ended June 30, 2010. As of June 30, 2010, none of the securities had been in a continuous unrealized loss position longer than 12 months.

#### 7. LONG-TERM INVESTMENTS

As of June 30, 2010, the Company held \$6.5 million (at par value) of auction rate securities which were classified as long-term investments. With the liquidity issues experienced in global credit and capital markets, these auction rate securities have experienced multiple failed auctions as the amount of securities submitted for sale has exceeded the amount of purchase orders, and as a result, these affected securities are currently not liquid. All of the Company's auction rate securities are secured by either student loans or municipal bonds. The student loans are backed by the full faith and credit of the federal government (up to approximately 98% of the value of the student loan). At June 30, 2010, the auction rate securities the Company held maintained Standard and Poor's credit ratings of A or AAA. All of these securities continue to pay interest according to their stated terms. While it is not the Company's intent to hold these securities until their stated ultimate maturity dates, these investments are scheduled to ultimately mature between 2038 and 2043.

The valuation of the Company's auction rate security investment portfolio is subject to uncertainties that are difficult to predict. The fair values of these securities are estimated by a third party specialist utilizing a discounted cash flow analysis as of June 30, 2010. The key drivers of the valuation model include the expected term, collateralization underlying the security investments, the creditworthiness of the counterparty, the timing of expected future cash flows, rates of default of the underlying assets, discount rates, and the expectation of the next time the security is expected to have a successful auction. These securities were also compared, when possible, to other observable market data for securities with similar characteristics to those held by the Company. Based on the valuation models of the individual securities, the Company had recognized cumulative losses of \$1.5 million as of June 30, 2010, of which \$0.3 million and \$0.4 million was recognized during the three and six months ended June 30, 2010. The market value of these securities has partially recovered from the lows that created the losses. As of June 30, 2010, the Company had recorded cumulative unrealized gains of \$0.5 million. The resulting carrying value of the auction rate securities at June 30, 2010, was \$5.5 million and is included in long-term investments. Any future decline in market value may result in additional losses being recognized.

At present, in the event the Company needs to liquidate its auction rate securities that are in an illiquid state, it may not be able to do so without the possible loss of principal until a future auction for these investments is successful, another secondary market evolves for these securities, they are redeemed by the issuer or they mature. If the Company is unable to sell these securities in the market or they are not redeemed, then the Company could be required to hold them to maturity. The Company does not have a need to access these funds for operational purposes in the foreseeable future. The Company will continue to monitor and evaluate these investments on an ongoing basis for impairment.

#### 8. FAIR VALUE MEASUREMENTS

The current guidance related to fair value measurements, among other things, defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. The guidance clarifies that fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

- Level 1: Observable inputs such as quoted prices in active markets;
- Level 2: Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly; and
- · Level 3: Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Cash equivalents, marketable securities and long-term investments measured at fair value as of June 30, 2010, are classified in the table below in one of the three categories described above (in thousands):

		Fair Value Measurements		
	Level 1	Level 2	Level 3	Total
Certificates of deposit	\$ 2,264	\$ —	\$ —	\$ 2,264
Money market funds	12,148	_	_	12,148
U.S. treasury securities	4,006	_	_	4,006
Government-sponsored enterprise securities	_	13,010	_	13,010
Auction rate securities			5,450	5,450
	\$ 18,418	\$ 13,010	\$ 5,450	\$ 36,878

The Company's investments in U.S. treasury securities, certificates of deposit, and money market funds are valued based on publicly available quoted market prices for identical securities as of June 30, 2010. The Company's investments in government-sponsored entities and corporate bonds are valued by a third party using proprietary valuation models and analytical tools. The inputs to these models include market pricing for similar instruments that are both objective and publicly available. The Company's investments in auction rate securities are also valued by a third party as more fully described in Note 7.

Activity for assets measured at fair value using significant unobservable inputs (Level 3) is presented in the table below (in thousands):

		Ending
	Jun	e 30, 2010
Balance at December 31, 2009	\$	5,477
Total net unrealized losses included in earnings		_
Total net unrealized losses included in other comprehensive income		27
Net transfers in and/out of Level 3		
Balance at June 30, 2010	\$	5,450
Total gains or losses for the period included in net loss attributable to the change in unrealized gains or losses relating to assets still held at the reporting date	\$	

Six Months

# 9. STOCKHOLDERS' EQUITY

During the three months ended March 31, 2010, certain of the Company's investors exercised warrants to purchase an aggregate of 2,365,644 shares of common stock that were issued in connection with the Company's May 2009 registered direct offering. The Company received net proceeds of \$5.0 million as a result of these exercises.

# ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Quarterly Report on Form 10-Q, or Report, contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1934, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding our business, our financial position, the research and development of biopharmaceutical products based on our patented DNA delivery technologies, the funding of our research and development efforts, and other statements describing our goals, expectations, intentions or beliefs. Such statements reflect our current views and assumptions and are subject to risks and uncertainties, particularly those inherent in the process of developing and commercializing biopharmaceutical products based on our patented DNA delivery technologies. Actual results could differ materially from those projected herein. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in our Annual Report on Form 10-K for the year ended December 31, 2009, and in our other filings with the SEC, and those identified in Part II, Item 1A entitled "Risk Factors" beginning on page 21 of this Report. As a result, you are cautioned not to rely on these forward-looking statements. We disclaim any duty to update any forward-looking statement to reflect events or circumstances that occur after the date on which such statement is made.

#### Overview

We research and develop biopharmaceutical products based on our patented DNA delivery technologies for the prevention and treatment of serious or life-threatening diseases. We believe the following areas of research offer the greatest potential for near-term commercialization for us and our partners:

- Vaccines for use in high-risk populations for infectious disease targets for which there are significant needs;
- Vaccines for general pediatric, adolescent and adult populations for infectious disease applications;
- Cancer vaccines or immunotherapies which complement our existing programs and core expertise; and
- Gene-based delivery of therapeutic proteins, such as angiogenic growth factors, for treatment of cardiovascular diseases.

We currently have five active independent clinical and preclinical development programs in the areas of infectious disease and cancer including:

- A fully enrolled Phase 3 clinical trial using our Allovectin-7® immunotherapeutic in patients with metastatic melanoma which has been funded, up to certain limits, by AnGes MG, Inc., or AnGes, through cash payments and equity investments under a research and development agreement;
- An ongoing Phase 2 clinical trial using TransVax<sup>TM</sup>, our cytomegalovirus, or CMV, therapeutic DNA vaccine, in patients undergoing hematopoietic cell transplants;
- Completed Phase 1 clinical trials using our H5N1 pandemic influenza DNA vaccine formulated with our proprietary Vaxfectin adjuvant;
- An ongoing Phase 1 clinical program using our H1N1 pandemic influenza DNA vaccine formulated with our proprietary Vaxfectin adjuvant; and
- A preclinical program using our CyMVectin™ prophylactic vaccine formulated with our proprietary Vaxfectin® adjuvant to prevent CMV infection before and during pregnancy.

We have leveraged our patented technologies through licensing and collaboration arrangements, such as our licensing arrangements with Merck & Co., Inc., or Merck, the sanofi-aventis Group, or sanofi-aventis, AnGes, Aqua Health Ltd. of Canada, or Aqua Health, an affiliate of Novartis Animal Health, and Merial Limited, or Merial, a subsidiary of sanofi-aventis, among other biopharmaceutical companies. Two of the licenses have resulted in the following approvals in veterinary applications, which we believe are important steps in the validation of our DNA delivery technology:

• In 2005, our licensee Aqua Health received approval from the Canadian Food Inspection Agency to sell a DNA vaccine, Apex-IHN, to protect farm-raised salmon against a lethal infectious disease.

• In 2009, our licensee Merial received approval from the U.S. Department of Agriculture, or USDA, to market a therapeutic DNA vaccine, ONCEPT™, designed to aid in extending the survival time of dogs with oral melanoma. We believe that Merial's vaccine is the first cancer vaccine ever approved for therapeutic use.

Furthermore, our partners, sanofi-aventis and AnGes, have applied our technologies to the local delivery of genes that encode angiogenic growth factors that promote the growth of blood vessels. Our licensee sanofi-aventis, has confirmed the completion of enrollment in its pivotal Phase 3 clinical trial of its angiogenesis therapy Temusi®. Sanofi-aventis expects final data from this trial in late 2010. Our licensee AnGes recently reported approval by the U.S. Food and Drug Administration, or FDA, of a Special Protocol Assessment agreement for a Phase 3 clinical trial of its Collategene<sup>TM</sup> angiogenesis product for patients with advanced peripheral arterial disease, or PAD. AnGes has also submitted a New Drug Application, or NDA, to the Japanese Ministry of Health, Labor and Welfare for Collategene<sup>TM</sup>, for indications related to PAD and Buerger's disease.

In addition, we have licensed complementary technologies from leading research institutions and biopharmaceutical companies. We also have granted non-exclusive, academic licenses to our DNA delivery technology patent estate to 11 leading research institutions including Stanford, Harvard, Yale and the Massachusetts Institute of Technology. The non-exclusive academic licenses allow university researchers to use our technology free of charge for educational and internal, non-commercial research purposes. In exchange, we have the option to exclusively license from the universities potential commercial applications arising from their use of our technology on terms to be negotiated.

# **Product Development**

We, together with our licensees and collaborators, are currently developing a number of DNA-based vaccines and therapeutics for the prevention or treatment of infectious diseases, cardiovascular diseases and cancer. Our lead independent development programs focus on metastatic melanoma and CMV. The table below summarizes our independent programs and corporate and government collaborations.

Product Concept	Intended Use	Development Status 1	Lead Developer
Independent Programs			
Allovectin-7® cancer immunotherapeutic	First-line treatment for metastatic melanoma	Phase 3	Vical
TransVax <sup>TM</sup> therapeutic vaccine for cytomegalovirus	Prevent viral reactivation and disease after transplant	Phase 2	Vical
Prophylactic vaccine for H5N1 pandemic influenza virus	Protect against infection, disease, and/or viral shedding	Phase 1	Vical
Prophylactic vaccine for H1N1 pandemic influenza virus	Protect against infection, disease, and/or viral shedding	Phase 1	Vical
CyMVectin™ prophylactic vaccine for cytomegalovirus	Prevent infection before and during pregnancy to preclude fetal transmission	Preclinical	Vical
Therapeutic vaccine for herpes simplex type 2 virus	Prevent recurring flare-ups, reduce viral shedding and transmission	Research	Vical
Corporate Collaborations			
Collategene™ angiogenic therapy encoding Hepatocyte Growth Factor	Induce local growth of blood vessels to restore blood flow to limbs affected by ischemia	NDA filed in Japan, Phase 2 in the United States	AnGes
Temusi $^{\text{\tiny{\$}}}$ angiogenic therapy encoding Fibroblast Growth Factor 1	Induce local growth of blood vessels to restore blood flow to limbs affected by ischemia	Phase 3	Sanofi-aventis
Therapeutic vaccine encoding human telomerase reverse transcriptase	Treat non-small cell lung, breast or prostate cancer, melanoma, or carcinomas of the upper GI tract, colon, kidney, or bladder	Phase 1	Merck
Prophylactic and/or therapeutic hepatitis C vaccine	Prevent and/or treat infection, disease, and/or viral shedding	Research	Merck
Apex-IHN® prophylactic vaccine for infectious hematopoietic necrosis virus	Protect farm-raised salmon from infection and disease when exposed to infected wild salmon	Approved in Canada	Aqua Health (Novartis)
ONCEPT™ therapeutic cancer vaccine encoding human tyrosinase	Adjunct treatment to increase survival time of dogs with oral melanoma	Approved in the United States	Merial
Government Collaborations			
Prophylactic and/or therapeutic HIV vaccine	Prevent and/or treat infection, disease, and/or viral shedding	Phase 2	NIH

<sup>&</sup>quot;Research" indicates exploration and/or evaluation of a potential product candidate in a nonclinical laboratory setting. "Preclinical" indicates that a specific product candidate in a nonclinical setting has shown functional activity that is relevant to a targeted medical need, and is advancing toward initial human clinical testing. "Phase 1" clinical trials are typically conducted with a small number of patients or healthy subjects to evaluate safety, determine a safe dosage range, identify side effects, and, if possible, gain early evidence of effectiveness. "Phase 2" clinical trials are conducted with a larger group of patients to evaluate effectiveness of an investigational product for a defined patient population, and to determine common short-term side effects and risks associated with the product candidate. "Phase 3" clinical trials involve large scale, multi-center, comparative trials that are conducted with patients afflicted with a target disease to evaluate the overall benefit-risk relationship of the investigational product and to provide an adequate basis for product labeling.

#### **Recent Events**

The following events have recently occurred with respect to our business:

# Continued Progress in our Melanoma Program

- The June issue of *Melanoma Research* included updated data from our Phase 2 trial of high-dose Allovectin-7® in patients with metastatic melanoma. A separate article in the May issue of Expert *Opinion on Biological Therapy* reviewed results from the Phase 2 trial and previous clinical studies of Allovectin-7®.
- An independent Safety Monitoring Board for our Phase 3 trial of Allovectin-7® in patients with metastatic melanoma completed the trial's fourth scheduled safety analysis and recommended that the trial continue per the protocol.

# Continued Progress in our CMV Program

- Our TransVax<sup>TM</sup> CMV vaccine elicited sustained increases in both cellular and antibody immune responses compared with placebo through the final 12-month follow-up in an ongoing Phase 2 trial in hematopoietic cell transplant recipients.
- We are collaborating with leading pediatric infectious disease researchers at Virginia Commonwealth University under a five-year, approximately \$4.0 million grant from the National Institute of Allergy and Infectious Diseases. The grant will support development and animal testing of novel vaccine approaches designed to protect women of child-bearing potential from infection with CMV.

# Continued Progress in our Influenza Program

· We initiated our Phase 1 trial of our Vaxfectin®-formulated plasmid DNA vaccine against H1N1 pandemic influenza.

#### Continued Progress in our HSV-2 Program

• Our prophylactic Vaxfectin®-formulated plasmid DNA vaccine against herpes simplex virus type 2, or HSV-2, protected mice against lethal challenge, provided sterilizing immunity and inhibited viral counts at both the primary and latent infection sites. A related vaccine significantly reduced the recurrence of HSV-2 lesions in a therapeutic model using guinea pigs with latent infection.

#### Research, Development and Manufacturing Programs

To date, we have not received revenues from the sale of our independently developed pharmaceutical products and have received minimal revenues from the sale of commercially marketed products by our licensees. We earn revenues by performing services under research and development and manufacturing contracts, from grants and from licensing access to our proprietary technologies. Since our inception, we estimate that we have received approximately \$163.0 million in revenues from these sources. Revenues by source were as follows (in millions):

		Three Months Ended June 30,		Six Months Ended June 30,	
Source	2010	2009	2010	2009	
Navy H1N1 contract	\$ 0.7	\$ 0.0	\$ 0.7	\$ 0.0	
RapidResponse™ DNA manufacturing grant	0.4	0.3	0.8	0.5	
Other contracts and grants	0.3	0.1	0.4	0.2	
Total contract and grant revenues	1.4	0.4	1.9	0.7	
AnGes licenses	0.5	1.8	1.3	3.6	
Merck license	0.0	1.5	0.0	1.5	
Other royalties and licenses	0.2	0.3	0.3	0.4	
Total royalty and license revenues	0.7	3.6	1.6	5.5	
Total revenues	\$ 2.1	\$ 4.0	\$ 3.5	\$ 6.2	

Research, development, manufacturing and production costs by major program, as well as other costs, were as follows (in millions):

	June 30,		June 30,	
Program	2010	2009	2010	2009
Allovectin-7®	\$ 3.8	\$ 5.2	\$ 8.5	\$ 10.2
CMV	2.1	1.2	3.9	3.0
Pandemic influenza	1.3	0.3	1.6	0.4
Other research, development, manufacturing and production	1.2	1.2	2.3	3.0
Total research, development, manufacturing and production	\$ 8.4	\$ 7.9	\$ 16.3	\$ 16.6

Since our inception, we estimate that we have spent approximately \$399 million on research, development, manufacturing and production. Our current independent development focus is on our cancer immunotherapeutic Allovectin-7®, novel DNA vaccines for CMV and pandemic influenza, and other clinical and preclinical targets.

We are conducting a Phase 3 clinical trial using Allovectin-7® in patients with recurrent metastatic melanoma which has been funded, up to certain limits, by AnGes through cash payments and equity investments under a research and development agreement. We are also in the early stages of clinical development of vaccine candidates for CMV and pandemic influenza and these programs will require significant additional funds to advance through development to commercialization. From inception, we have spent approximately \$125 million on our Allovectin-7® program, \$54 million on our CMV programs, and \$24 million on our pandemic influenza programs.

We have other product candidates in the research stage. It can take many years to develop product candidates from the initial decision to screen product candidates, perform preclinical and safety studies, and perform clinical trials leading up to possible approval of a product by the FDA or comparable foreign agencies. The outcome of the research is unknown until each stage of the testing is completed, up through and including the registration clinical trials. Accordingly, we are unable to predict which potential product candidates we may proceed with, the time and cost to complete development, and ultimately whether we will have a product approved by the FDA or comparable foreign agencies.

As a result, we expect to incur substantial operating losses for at least the next several years, due primarily to the advancement of our research and development programs, the cost of preclinical studies and clinical trials, spending for outside services, costs related to maintaining our intellectual property portfolio, costs due to manufacturing activities, costs related to our facilities, and possible advancement toward commercialization activities.

#### **Critical Accounting Policies and Estimates**

The preparation of financial statements in accordance with accounting principles generally accepted in the United States requires that management make a number of assumptions and estimates that affect the reported amounts of assets, liabilities, revenues and expenses in our financial statements and accompanying notes. Management bases its estimates on historical information and assumptions believed to be reasonable. Although these estimates are based on management's best knowledge of current events and circumstances that may impact us in the future, actual results may differ from these estimates.

Our critical accounting policies are those that affect our financial statements materially and involve a significant level of judgment by management. Our critical accounting policies regarding revenue recognition are in the following areas: license and royalty agreements, manufacturing contracts, contract services and grant revenues. Our critical accounting policies also include recognition of research and development expenses and the valuation of long-lived and intangible assets.

#### Revenue Recognition

We recognize revenue in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, 605 "Revenue Recognition." Revenue is recognized when the four basic criteria of revenue recognition are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Contract Manufacturing Revenue. Our contract manufacturing arrangements typically require the delivery of multiple lots of clinical vaccines. We analyze our multiple element arrangements to determine whether the elements can be separated and accounted for individually as separate units of accounting. The evaluation is performed at the inception of the arrangement. The delivered item(s) is considered a separate unit of accounting if all of the following criteria are met: (1) the delivered item(s) have standalone value to the customer; (2) there is objective and reliable evidence of the fair value of the undelivered item(s); and (3) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is considered probable and substantially in our control. If the delivered item does not have standalone value or we do not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered item is deferred.

License and Royalty Revenue. Our license and royalty revenues are generated through agreements with strategic partners. Nonrefundable, up-front license fees and milestone payments with standalone value that are not dependent on any future performance by us under the arrangements are recognized as revenue upon the earlier of when payments are received or collection is assured, but are deferred if we have continuing performance obligations. If we have continuing involvement through contractual obligations under such agreement, such up-front fees are deferred and recognized over the period for which we continue to have a performance obligation, unless all of the following criteria exist: (1) the delivered item(s) have standalone value to the customer; (2) there is objective and reliable evidence of the fair value of the undelivered item(s); and (3) if the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item(s) is considered probable and substantially in our control. If the delivered item does not have standalone value or we do not have objective or reliable evidence of the fair value of the undelivered component, the amount of revenue allocable to the delivered item is deferred.

We recognize royalty revenues from licensed products when earned in accordance with the terms of the license agreements. Net sales figures used for calculating royalties include deductions for costs of returns, cash discounts, and costs of freight and warehousing, which may vary over the course of the license agreement. Payments received related to milestones are recognized as revenue upon the achievement of the milestones as specified in the underlying agreements, which represent the culmination of the earnings process.

Contract Services and Government Research Grant Revenue. We recognize revenue from contract services and federal government research grants during the period in which the related expenditures are incurred and related payments for those services are received or collection is reasonably assured.

# Research and Development Expenses

Research and development expenses consist of expenses incurred in performing research and development activities including salaries and benefits, facilities and other overhead expenses, clinical trials, contract services and other outside expenses. Research and development expenses are charged to operations as they are incurred.

We assess our obligations to make milestone payments that may become due for licensed or acquired technology to determine whether the payments should be expensed or capitalized. We charge milestone payments to research and development expense when:

- The technology is in the early stage of development and has no alternative uses;
- There is substantial uncertainty of the technology or product being successful;
- There will be difficulty in completing the remaining development; and
- There is substantial cost to complete the work.

#### Capitalization and Valuation of Long-Lived and Intangible Assets

Intangible assets with finite useful lives consist of capitalized legal costs incurred in connection with patents, patent applications pending and technology license agreements. Payments to acquire a license to use a proprietary technology are capitalized if the technology is expected to have alternative future use in multiple research and development projects. We amortize costs of approved patents, patent applications pending and license agreements over their estimated useful lives, or terms of the agreements, whichever are shorter

For patents pending, we amortize the costs over the shorter of a period of twenty years from the date of filing the application or, if licensed, the term of the license agreement. We re-assess the useful lives of patents when they are issued, or whenever events or changes in circumstances indicate the useful lives may have changed. For patents and patent applications pending that we abandon, we charge the remaining unamortized accumulated costs to expense.

Intangible assets and long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. If the review indicates that intangible assets or long-lived assets are not recoverable, their carrying amount would be reduced to fair value. Factors we consider important that could trigger an impairment review include the following:

- A significant change in the manner of our use of the acquired asset or the strategy for our overall business; and/or
- · A significant negative industry or economic trend.

In the event we determine that the carrying value of intangible assets or long-lived assets is not recoverable based upon the existence of one or more of the above indicators of impairment, we may be required to record impairment charges for these assets. As of June 30, 2010, our largest group of intangible assets with finite lives includes patents and patents pending for our DNA delivery technology, consisting of intangible assets with a net carrying value of approximately \$2.8 million.

# **Recent Accounting Pronouncements**

For information on the recent accounting pronouncements which may impact our business, see Note 1 of the Notes to Financial Statements included in this Report.

#### **Results of Operations**

# Three Months Ended June 30, 2010, Compared with Three Months Ended June 30, 2009

Total Revenues. Total revenues decreased \$1.9 million, or 47.8%, to \$2.1 million for the three months ended June 30, 2010, from \$4.0 million for the three months ended June 30, 2009. Our license and royalty revenue decreased by \$2.9 million which was primarily the result of a \$1.5 million milestone payment received from Merck during the three months ended June 30, 2009, related to its Phase 1 clinical-stage development of an investigational plasmid DNA cancer vaccine and a \$1.2 million decrease in the recognition of revenue related to our Allovectin-7\* license agreement with AnGes. These decreases were partially offset by a \$0.8 million increase in contract revenue which was primarily related to the delivery of an H1N1 vaccine that we manufactured for the US Navy during the three months ended June 30, 2010.

Research and Development Expenses. Research and development expenses decreased \$0.7 million, or 12.2%, to \$5.0 million for the three months ended June 30, 2010, from \$5.7 million for the three months ended June 30, 2009. This decrease was primarily the result of lower clinical trial related costs.

Manufacturing and Production Expenses. Manufacturing and production expenses increased \$1.2 million, or 52.9%, to \$3.4 million for the three months ended June 30, 2010, from \$2.2 million for the three months ended June 30, 2009. This increase was primarily the result of the recognition of costs related to the delivery of a H1N1 vaccine that we manufactured for the U.S. Navy during the three months ended June 30, 2010.

General and Administrative Expenses. General and administrative expenses increased \$0.3 million, or 15.9%, to \$2.2 million for the three months ended June 30, 2010, from \$1.9 million for the three months ended June 30, 2009. This increase was primarily the result of higher stock based compensation expense for the three months ended June 30, 2010, when compared to the prior year period.

Investment and Other Income, Net. Investment and other income increased \$0.3 million, or 159.0%, to \$0.1 million for the three months ended June 30, 2010, from \$(0.2) million for the three months ended June 30, 2009. This increase was primarily the result of the recognition of a loss on our auction rate securities during the three months ended June 30, 2009.

#### Six Months Ended June 30, 2010, Compared with Six Months Ended June 30, 2009

Total Revenues. Total revenues decreased \$2.7 million, or 43.2%, to \$3.5 million for the six months ended June 30, 2010, from \$6.2 million for the six months ended June 30, 2009. Our license and royalty revenue decreased by \$3.9 million which was primarily the result of a \$1.5 million milestone payment received from Merck during the six months ended June 30, 2009, related to its Phase 1 clinical-stage development of an investigational plasmid DNA cancer vaccine and a \$2.2 million decrease in the recognition of revenue related to our Allovectin-7® license agreement with AnGes. These decreases were partially offset by a \$0.8 million increase in contract revenue which was primarily related to the delivery of an H1N1 vaccine that we manufactured for the US Navy during the six months ended June 30, 2010.

Research and Development Expenses. Research and development expenses decreased \$1.8 million, or 15.2%, to \$10.1 million for the six months ended June 30, 2010, from \$11.9 million for the six months ended June 30, 2009. This decrease was primarily the result of lower clinical trial related costs.

Manufacturing and Production Expenses. Manufacturing and production expenses increased \$1.5 million, or 33.0%, to \$6.2 million for the six months ended June 30, 2010, from \$4.7 million for the six months ended June 30, 2009. This increase was primarily the result of the recognition of costs related to the delivery of a H1N1 vaccine that we manufactured for the U.S. Navy during the six months ended June 30, 2010 and due to the deferral of costs during the six months ended June 30, 2009, related to a Dengue vaccine we manufactured for the US Navy.

General and Administrative Expenses. General and administrative expenses increased \$0.6 million, or 15.4%, to \$4.4 million for the six months ended June 30, 2010, from \$3.8 million for the six months ended June 30, 2009. This increase was primarily the result of higher stock based compensation expense for the six months ended June 30, 2010, when compared to the prior year period.

Investment and Other Income, Net. Investment and other income increased \$0.4 million, or 298.6%, to \$0.3 million for the six months ended June 30, 2010, from \$(0.1) million for the six months ended June 30, 2009. This increase was primarily the result of the recognition of a loss on our auction rate securities during the six months ended June 30, 2009.

# Liquidity and Capital Resources

Since our inception, we have financed our operations primarily through private placements of preferred and common stock, public offerings of common stock, and revenues from our operations. From our inception through December 31, 2009, we have received approximately \$163.0 million in revenues from performing services under research and development and manufacturing contracts, from grants and from licensing access to our proprietary technologies, and we have raised net proceeds of approximately \$338.5 million from the sale of equity securities. Cash, cash equivalents, marketable securities, and long-term investments, including restricted securities, totaled \$39.9 million at June 30, 2010, compared with \$52.6 million at December 31, 2009. The decrease in our cash, cash equivalents and marketable securities for the six months ended June 30, 2010, was the result of the use of cash to fund our operations which was partially offset by net proceeds of \$5.0 million from the sale of our securities.

Net cash used in operating activities was \$17.2 million and \$11.1 million for the six months ended June 30, 2010 and 2009, respectively. The increase in net cash used in operating activities for the six months ended June 30, 2010, compared with the prior year period, was primarily the result of an increase in our net loss and an increase in payments for accounts payable and accrued expenses.

Net cash used in investing activities was \$1.3 million and \$7.1 million for the six months ended June 30, 2010 and 2009, respectively. The decrease in cash used in investing activities for the six months ended June 30, 2010, compared with the prior year period, was primarily the result of a decrease in net purchases of investments.

Net cash provided by financing activities was \$4.9 million and \$18.7 million for the six months ended June 30, 2010 and 2009, respectively. The decrease in cash provided by financing activities for the six months ended June 30, 2010, compared with the prior year period, was the result of a decrease in net proceeds from the sale of our securities.

A discussion of our exposure to auction rate securities is included in Part 1, Item 3 of this Report under the heading "Quantitative and Qualitative Disclosures About Market Risk."

We expect to incur substantial additional research and development expenses, manufacturing and production expenses, and general and administrative expenses, including continued increases in costs related to personnel, preclinical and clinical testing, outside services, facilities, intellectual property and possible commercialization. Our future capital requirements will depend on many factors, including continued scientific progress in our research and development programs, the scope and results of preclinical testing and clinical trials, the time and costs involved in obtaining regulatory approvals, the costs involved in filing, prosecuting, enforcing and defending patent claims, the impact of competing technological and market developments, the cost of manufacturing scale-up and validation, and possible commercialization activities and arrangements. We may seek additional funding through research and development relationships with suitable potential corporate collaborators. We may also seek additional funding through public or private financings. We have on file two effective shelf registration statements that collectively allow us to raise up to an additional \$140.2 million from the sale of common stock, preferred stock, debt securities and/or warrants and we have also entered into an equity line of credit with Azimuth pursuant to which we may sell up to \$25.0 million of our common stock, subject to certain conditions. However, additional financing may not be available on favorable terms or at all. If additional funding is not available, we anticipate that our available cash and existing sources of funding will be adequate to satisfy our cash needs at least through December 31, 2011.

# Contractual Obligations

Under our Merck, sanofi-aventis, AnGes, Merial and Aqua Health agreements, we are required to pay up to 10% of certain initial upfront monetary payments, and a small percentage of some royalty payments, to the Wisconsin Alumni Research Foundation and/or the University of Michigan. In addition, certain technology license agreements require us to make payments if we or our sublicensees advance products through clinical development. For programs developed with the support of U.S. government funding, the U.S. government may have rights to resulting products without payment of royalties to us.

We may be required to make future payments to our licensors based on the achievement of milestones set forth in various in-licensing agreements. In most cases, these milestone payments are based on the achievement of development or regulatory milestones, including the exercise of options to obtain licenses related to specific disease targets, commencement of various phases of clinical trials, filing of product license applications, approval of product licenses from the FDA or a foreign regulatory agency, and the first commercial sale of a related product. Payment for the achievement of milestones under our in-license agreements is highly speculative and subject to a number of contingencies.

The aggregate amount of additional milestone payments that we could be required to pay under all of our in-license agreements in place at June 30, 2010, is approximately \$18.1 million, of which approximately \$7.5 million is related to our independent programs and corporate and government collaborations which are currently in clinical trials. These amounts assume that all remaining milestones associated with the milestone payments are met. In the event that product license approval for any of the related products is obtained, we may be required to make royalty payments in addition to these milestone payments. Although we believe that some of the milestones contained in our in-license agreements may be achieved, it is highly unlikely that a significant number of them will be achieved. Because the milestones are highly contingent and we have limited control over whether the development and regulatory milestones will be achieved, we are not in a position to reasonably estimate how much, if any, of the potential milestone payments will ultimately be paid, or when. Additionally, under the in-license agreements, many of the milestone events are related to progress in clinical trials which will take several years to achieve.

In addition, we have undertaken certain commitments under license agreements with collaborators, and under indemnification agreements with our officers and directors. Under the license agreements with our collaborators, we have agreed to continue to maintain and defend the patent rights licensed to the collaborators. Under the indemnification

agreements with our officers and directors, we have agreed to indemnify those individuals for any expenses and liabilities in the event of a threatened, pending or actual investigation, lawsuit, or criminal or investigative proceeding.

We have employment agreements that contain severance arrangements with each of our three executive officers and two of our other executives. Under the agreements with the executive officers we are obligated to pay severance if we terminate the executive officer's employment without "cause," or if the executive officer resigns for "good reason," as defined in the agreements, within the periods set forth therein. The severance for the executive officers consists of continued base salary payments at the then-current rate, including the payment of health insurance premiums, for the period specified in each agreement, which ranges from 12 to 18 months, plus a payment equal to between one and one and a half times the executive's cash bonus in the previous year. In addition, the executive officers receive accelerated vesting on all their unvested stock awards as if they had remained employed by us for between 12 and 18 months from the date of termination. In the event that the termination occurs within 24 months of a "change in control," as defined in the agreements, the severance for the executive officers consists of lump sum payments equal to between 18 and 24 months of base salary at the then-current rate, the payment of health insurance premiums for the period specified in each agreement, which ranges from 12 to 18 months, plus a payment equal to between one and one and a half times the executive's cash bonus in the previous year. In addition, all outstanding unvested stock awards will vest immediately. The severance for the other executives consists of continued payments at the then-current base compensation rate for a period of nine months. All of the agreements specify that any earnings from employment or consulting during this period will offset any salary continuation payments due from us. The maximum payments due under these employment agreements would have been \$2.8 million if each such executive officer and other executive were terminated at June 30, 2010.

# ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are subject to interest rate risk. Our investment portfolio is maintained in accordance with our investment policy which defines allowable investments, specifies credit quality standards and limits the credit exposure of any single issuer. Our investment portfolio consists of cash equivalents, both restricted and non-restricted, and marketable securities. The average maturity of our non-equity investments, excluding our auction rate securities, is approximately five months. Our investments are classified as available-for-sale securities.

To assess our interest rate risk, we performed a sensitivity analysis projecting an ending fair value of our cash equivalents and current marketable securities using the following assumptions: a 12-month time horizon, a 9-month average maturity and a 150-basis-point increase in interest rates. This pro forma fair value would have been \$0.1 million lower than the reported fair value of our non-equity investments at June 30, 2010.

All of our investment securities are classified as available-for-sale and therefore reported on the balance sheet at market value. Our investment securities consist of high-grade auction rate securities, corporate debt securities and government agency securities. As of June 30, 2010, our long-term investments included (at par value) \$6.5 million of auction rate securities secured by municipal bonds and student loans. At June 30, 2010, the auction rate securities we held maintained Standard and Poor's credit ratings of A or AAA. Our auction rate securities are debt instruments with a long-term maturity and with an interest rate that is reset in short intervals through auctions. The recent conditions in the global credit markets have prevented some investors from liquidating their holdings of auction rate securities because the amount of securities submitted for sale has exceeded the amount of purchase orders for such securities. If there is insufficient demand for the securities at the time of an auction, the auction may not be completed and the interest rates may be reset to predetermined higher rates. When auctions for these securities fail, the investments may not be readily convertible to cash until a future auction of these investments is successful or they are redeemed or mature.

Since February 2008, there has been insufficient demand at auction for all of our auction rate securities held at June 30, 2010. As a result, these affected securities are currently not liquid, and we could be required to hold them until they are redeemed by the issuer or to maturity. As of June 30, 2010, we had recognized \$1.5 million of losses related to those auction rate securities by adjusting their carrying value. The market value of these securities has partially recovered from the lows that created the losses. As of June 30, 2010, we had recorded cumulative unrealized gains of \$0.5 million. Any future decline in market value may result in additional losses being recognized.

The valuation of our auction rate security investment portfolio is subject to uncertainties that are difficult to predict. The fair values of these securities are estimated utilizing a discounted cash flow analysis or other type of valuation model as of June 30, 2010. The key drivers of the valuation model include the expected term, collateralization underlying the security investments, the creditworthiness of the counterparty, the timing of expected future cash flows, rates of default of the underlying assets, discount rates, and the expectation of the next time the security is expected to have a successful auction.

These securities were also compared, when possible, to other observable market data with similar characteristics to the securities held by us.

In the event we need to access the funds that are not currently liquid, we will not be able to do so without the possible loss of principal, until a future auction for these investments is successful or they are redeemed by the issuer or they mature. If we are unable to sell these securities in the market or they are not redeemed, then we may be required to hold them to maturity. We do not anticipate a need to access these funds for operational purposes for the foreseeable future. We will continue to monitor and evaluate these investments on an ongoing basis for impairment. Based on our ability to access our cash and other short-term investments, our expected operating cash flows, and our other sources of cash, we do not anticipate that the potential illiquidity of these investments will affect our ability to execute our current business plan.

#### ITEM 4. CONTROLS AND PROCEDURES

# Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of our disclosure controls and procedures, as such term is defined in Rule 13a-15(e) promulgated under the Securities Exchange Act of 1934, as amended, as of the end of the period covered by this Report. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of June 30, 2010.

# Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during the three months ended June 30, 2010, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

#### PART II. OTHER INFORMATION

# ITEM 1A. RISK FACTORS

You should consider carefully the risks described below, together with all of the other information included in this Report, and in our other filings with the SEC, before deciding whether to invest in or continue to hold our common stock. The risks described below are all material risks currently known, expected or reasonably foreseeable by us. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

The risk factors set forth below with an asterisk (\*) next to the title are new risk factors or risk factors containing changes, including any material changes, from the risk factors previously disclosed in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2009, as filed with the SEC.

(\*)None of our independently developed product candidates has been approved for sale, and we have a limited number of independently developed product candidates in clinical trials. If we do not develop commercially successful products, we may be forced to curtail or cease operations.

All of our independently developed product candidates are either in research or development. We must conduct a substantial amount of additional research and development before any U.S. or foreign regulatory authority will approve any of our product candidates. Limited data exist regarding the efficacy of DNA vaccines or therapeutics compared with conventional vaccines or therapeutics. Results of our research and development activities may indicate that our product candidates are unsafe or ineffective. In this case, regulatory authorities will not approve them.

For example, our independently developed product candidates currently in clinical development include Allovectin-7, for which we announced the completion of enrollment of a Phase 3 clinical trial in 2010, TransVax<sup>TM</sup>, for which we reported interim results from a Phase 2 clinical study in 2009, and our H1N1 pandemic influenza vaccine, for which we announced the initiation of Phase 1 clinical testing in 2010. We may not meet the primary endpoint of the Allovectin-7® trial for which a Special Protocol Assessment agreement is in place with the FDA. TransVax<sup>TM</sup> and our H1N1 pandemic influenza vaccine may not meet the endpoints in their respective clinical trials and we may not conduct additional TransVax<sup>TM</sup> or H1N1 pandemic influenza vaccine trials, and the future trials, if any, may not demonstrate sufficient efficacy to support further product development.

Additionally, we are in early stages of development with other product candidates. These product candidates will require significant costs to advance through the development stages. If such product candidates are advanced through clinical trials, the results of such trials may not support approval by the FDA or comparable foreign agencies. Even if approved, our products may not be commercially successful, particularly if they do not gain market acceptance among physicians, patients, healthcare payers and relevant medical communities. If we fail to develop and commercialize our products, we may be forced to curtail or cease operations.

(\*) Our revenues partially depend on the development and commercialization of products in collaboration with others to whom we have licensed our technologies. If our collaborators or licensees do not successfully develop and commercialize products covered by these arrangements, or if we are unable to find collaborators or licensees in the future, we may not be able to derive revenues from these arrangements, we may lose opportunities to validate our DNA delivery technologies, or we may be forced to curtail our development and commercialization efforts in these areas.

We have licensed, and may continue to license, our technologies to corporate collaborators and licensees for the research, development and commercialization of specified product candidates. Our revenues partially depend upon the ability of these collaborators and licensees to successfully develop and commercialize products covered by these arrangements. In addition, we have two licensees, sanofi-aventis and AnGes, with product candidates in advanced stages of clinical development, for which we believe regulatory approval would provide important further validation of our DNA delivery technologies. The development and commercialization efforts of our collaborators and licensees are subject to the same risks and uncertainties described above with respect to our independently developed product candidates.

Some collaborators or licensees may not succeed in their product development efforts, such as our former licensee, Corautus Genetics Inc., who discontinued development efforts of a product for which they had licensed our core DNA delivery technology for specific cardiovascular applications. It is possible that sanofi-aventis, AnGes or any of our other collaborators or licensees may be unable to obtain regulatory approval of product candidates using our technologies or successfully market and commercialize any such products for which regulatory approval is obtained. Other collaborators or licensees may not devote sufficient time or resources to the programs covered by these arrangements, and we may have limited or no control over the time or resources allocated by these collaborators or licensees to these programs. The occurrence of any of these events may cause us to derive little or no revenue from these arrangements, lose opportunities to validate our DNA delivery technologies, or force us to curtail or cease our development and commercialization efforts in these areas.

Our collaborators and licensees may breach or terminate their agreements with us, including some that may terminate their agreements without cause at any time subject to certain prior written notice requirements, and we may be unsuccessful in entering into and maintaining other collaborative arrangements for the development and commercialization of products using our technologies. If we are unable to maintain existing collaboration arrangements or enter into new ones, our ability to generate licensing, milestone or royalty revenues would be materially impaired.

Some of our independent product candidates and some of those under development by our sublicensees incorporate technologies we have licensed from others. If we are unable to retain rights to use these technologies, we or our sublicensees may not be able to market products incorporating these technologies on a commercially feasible basis, if at all.

We have licensed certain technologies from corporate collaborators and research institutions, and sublicensed certain of such technologies to others, for use in the research, development and commercialization of product candidates. Our product development efforts and those of our sublicensees partially depend upon continued access to these technologies. For example, we or our licensors may breach or terminate our agreements, or disagree on interpretations of those agreements, which could prevent continued access to these technologies. If we were unable to resolve such matters on satisfactory terms, or at all, we or our sublicensees may be unable to develop and commercialize our products, and we may be forced to curtail or cease operations.

#### A significant portion of our revenue is derived from agreements with government agencies, which are subject to termination and uncertain future funding.

We have entered into agreements with government agencies, such as the NIH and Navy Medical Research Center, and we intend to continue entering into these agreements in the future. For example, we receive grants from governmental agencies and have in the past entered into agreements to manufacture vaccines for such agencies. Our business is partially dependent on the continued performance by these government agencies of their responsibilities under these agreements, including adequate continued funding of the agencies and their programs. We have no control over the resources and funding that government agencies may devote to these agreements, which may be subject to annual renewal and which generally may be terminated by the government agencies at any time.

Government agencies may fail to perform their responsibilities under these agreements, which may cause them to be terminated by the government agencies. In addition, we may fail to perform our responsibilities under these agreements. Many of our government agreements are subject to audits which may occur several years after the period to which the audit relates. If an audit identifies significant unallowable costs, we could incur a material charge to our earnings or reduction in our cash position. As a result, we may be unsuccessful entering or ineligible to enter into future government agreements.

We apply for and have received funding from various government agencies. Eligibility of public companies to receive grants, such as Small Business Technology Transfer and Small Business Innovation Research grants, may be based on size and ownership criteria which are under review by the Small Business Administration, or SBA. As a result, our eligibility may change in the future, and additional funding from these sources may not be available.

# (\*)We have a history of net losses. We expect to continue to incur net losses and we may not achieve or maintain profitability.

To date, we have not sold, or received approval to sell, any pharmaceutical products. We do not expect to sell any pharmaceutical products for at least the next several years. Our net losses were approximately \$28.6 million, \$36.9 million and \$35.9 million for the years ended December 31, 2009, 2008 and 2007, respectively. As of June 30, 2010, we had incurred cumulative net losses totaling approximately \$304.2 million. Moreover, we expect that our net losses will continue and may increase for the foreseeable future. We may not be able to achieve projected results if we generate lower revenues or receive lower investment income than expected, or we incur greater expenses than expected, or all of the above. We may never generate sufficient product revenue to become profitable. We also expect to have quarter-to-quarter fluctuations in revenues, expenses, and losses, some of which could be significant.

#### (\*)We may need additional capital in the future. If additional capital is not available, we may have to curtail or cease operations.

We may need to raise more money to continue the research and development necessary to bring our products to market and to establish marketing and additional manufacturing capabilities. We may seek additional funds through public and private stock offerings, government contracts and grants, arrangements with corporate collaborators, borrowings under lease lines of credit or other sources. We have on file two effective shelf registration statements that collectively allow us to raise up to an additional \$140.2 million from the sale of common stock, preferred stock, debt securities and/or warrants. However, we may not be able to raise additional funds on favorable terms, or at all. The credit markets and the financial services industry have been experiencing a period of unprecedented turmoil and upheaval which has generally made equity and debt financing more difficult to obtain, and may negatively impact our ability to complete financing transactions. To the extent that we raise additional funds by issuing equity securities, our stockholders may experience significant dilution. Any debt financing, if available, may involve restrictive covenants, such as limitations on our ability to incur additional indebtedness and other operating restrictions that could adversely impact our ability to conduct our business.

In January 2010, we entered into a committed equity line of credit with Azimuth, under which we may sell to Azimuth, subject to certain limitations, up to \$25.0 million of our common stock over a 24-month period. Azimuth will not be obligated to purchase shares under the equity line of credit unless specified conditions are met, which include a minimum price of \$1.50 for our common stock. If we are unable to meet the specified conditions with respect to any sale of shares under the Azimuth equity line of credit, we may be unable to access this source of financing. Azimuth is also permitted to terminate the equity line of credit under certain circumstances.

If we are unable to obtain additional funds, we may have to scale back our development of new products, reduce our workforce or license to others products or technologies that we otherwise would seek to commercialize ourselves. The amount of money we may need would depend on many factors, including:

- The progress of our research and development programs;
- The scope and results of our preclinical studies and clinical trials; and
- The time and costs involved in: obtaining necessary regulatory approvals; filing, prosecuting and enforcing patent claims; scaling up our manufacturing capabilities; and the commercial arrangements we may establish.

The regulatory approval process is expensive, time consuming and uncertain, which may prevent us and our collaborators and licensees from obtaining required approvals for the commercialization of our products.

Our product candidates under development and those of our collaborators and licensees are subject to extensive and rigorous regulations by numerous governmental authorities in the United States and other countries. The regulatory approval process takes many years and will require us to expend substantial resources. For example, the FDA has provided only limited guidelines concerning the size and scope of clinical trials required for gene-based therapeutic and vaccine products.

Therefore, U.S. or foreign regulations could prevent or delay regulatory approval of our products or limit our and our collaborators and licensees' ability to develop and commercialize our products. Delays could:

- Impose costly procedures on our activities and those of our collaborators and licensees;
- Diminish any competitive advantages that we or our products attain; or
- Negatively affect our results of operations and cash flows.

We have no experience in filing a Biologics License Application, or BLA, or new drug application, or NDA, with the FDA. Because a BLA or NDA must be submitted to and approved by the FDA before any of our product candidates may be commercialized, our lack of experience may impede our ability to obtain FDA approval in a timely manner, if at all, which in turn would delay or prevent us from commercializing those products. Similarly, our lack of experience with respect to obtaining regulatory approvals in countries other than the United States may impede our ability to commercialize our products in those countries.

We believe that the FDA and comparable foreign regulatory bodies will regulate separately each product containing a particular gene depending on its intended use. Presently, to commercialize any product we and our collaborators and licensees must file a regulatory application for each proposed use. We and our collaborators and licensees must conduct clinical studies to demonstrate the safety and efficacy of the product necessary to obtain FDA or foreign regulatory authority approval. The results obtained so far in our clinical trials and those of our collaborators and licensees may not be replicated in ongoing or future trials, or the results may be subject to varying interpretation on whether they are sufficient to support approval for commercialization. This may prevent any of our product candidates from receiving approval for commercial sale.

We use recombinant DNA molecules in our product candidates, and therefore we and our collaborators and licensees also must comply with guidelines instituted by the NIH and its Office of Biotechnology Activities. The NIH could restrict or delay the development of our product candidates.

If any of our product candidates receive regulatory approval, the FDA or other foreign regulatory agencies may still impose significant restrictions on the indicated uses or marketing of our product candidates or impose ongoing requirements for potentially costly post-approval studies. In addition, regulatory agencies subject a product, its manufacturer and the manufacturer's facilities to continual review and periodic inspections. If a regulatory agency discovers previously unknown problems with a product or a product class, including adverse events of unanticipated severity or frequency, or problems with the facility where the product is manufactured, a regulatory agency may impose restrictions on that product or product class, our collaborators and licensees or us, including requiring withdrawal of a product from the market. Our product candidates will also be subject to ongoing FDA and other foreign regulatory agency requirements for the labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information on the product. If we or our collaborators and licensees fail to maintain regulatory compliance after receiving marketing approval, we or our collaborators and licensees may be unable to market our products and our business could suffer.

Adverse events or the perception of adverse events in the field of gene therapy, or with respect to our product candidates, may negatively impact regulatory approval or public perception of our products.

The commercial success of some of our product candidates will depend in part on public acceptance of the use of gene therapy for preventing or treating human diseases. Serious adverse events, including patient deaths, have occurred in clinical trials utilizing viral delivery systems to deliver therapeutic genes to the patient's targeted cells. Although none of our current products or studies utilize viral delivery systems, these adverse events, as well as any other adverse events in the field of gene therapy that may occur in the future, may negatively influence public perception of gene therapy in general. If public perception is influenced by claims that gene therapy is unsafe, our product candidates may not be accepted by the general public or the medical community.

Future adverse events in gene therapy or the biotechnology industry could also result in greater governmental regulation, stricter labeling requirements and potential regulatory delays in the testing or approval of our potential products. Any increased scrutiny could delay or increase the costs of our product development efforts or clinical trials. In addition, any adverse events that may occur in our clinical trials and any resulting publicity may cause regulatory delays or otherwise affect our product development efforts or clinical trials.

Some of our potential products may be administered to patients who are suffering from, or are vulnerable to, serious diseases or other conditions which can themselves be life-threatening and often result in the death of the patient. For example, one patient in our Allovectin-7® Phase 2 trial conducted in 2000, died from progressive disease more than two months after receiving Allovectin-7® and other cancer therapies. The death was originally reported as unrelated to the treatment. Following an autopsy, the death was reclassified as "probably related" to the treatment because the possibility could not be ruled out. We do not believe Allovectin-7® was a significant factor in the patient's death. Patient deaths in our clinical trials, even if caused by pre-existing diseases or conditions, could negatively affect the perception of our product candidates. In addition, in our TransVax<sup>TM</sup> Phase 2 trial, we have administered TransVax<sup>TM</sup> to patients who are at risk of CMV reactivation. Although we do not believe our vaccine candidates could cause the diseases they are designed to protect against, a temporal relationship between vaccination and disease onset could be perceived as causal. Some of our products are designed to stimulate immune responses, and those responses, if particularly strong or uncontrolled, could result in local or systemic adverse events, including latent adverse events.

#### (\*)Our patents and proprietary rights may not provide us with any benefit and the patents of others may prevent us from commercializing our products.

As of June 30, 2010, we were the assignee or co-assignee of 63 issued U.S. and foreign patents. We maintain our issued patents by paying maintenance fees to the patent office in each country when due. Where appropriate, we participate in legal proceedings to vigorously defend against the revocation or withdrawal of our patents. The scope and nature of these proceedings generally differ depending on the country in which they are initiated. Among these issued patents, a granted patent in Europe related to our core DNA delivery technology has been opposed by eight parties and revoked under an initial ruling which we are appealing; and a patent granted in Europe covering a range of applications of our core DNA delivery technology using cationic lipid formulations was opposed, and maintained in amended form. If we are not successful in defending our patents, we may lose all or part of our proprietary rights related to those patents in these geographic regions.

As of June 30, 2010, we were also prosecuting 79 pending patent applications in the United States and in foreign countries that cover various aspects of our proprietary technologies, not including patent applications for which we are a co-assignee and that are being prosecuted by our partners.

We may not receive any patents from our current patent applications. Issued patents provide exclusivity for only a limited time period, after which they no longer serve to protect proprietary technologies or to provide any commercial advantage. Moreover, if patents are issued to us, governmental authorities may not allow claims sufficient to protect our technologies and products. Finally, others may challenge or seek to circumvent or invalidate our patents. In that event, the rights granted under our patents may be inadequate to protect our proprietary technologies or to provide any commercial advantage.

Some components of our gene-based product candidates are, or may become, patented by others. As a result, we may be required to obtain licenses to conduct research, to manufacture, or to market such products. Licenses may not be available on commercially reasonable terms, or at all, which may impede our ability to commercialize our products.

In March 2004, the NIH and the FDA launched the jointly developed Genetic Modification Clinical Research Information System, or GeMCRIS, an Internet-based database of human gene transfer trials. GeMCRIS enables individuals to easily view information on particular characteristics of clinical gene transfer trials. Although GeMCRIS includes special security features designed to protect patient privacy and confidential commercial information, these security features may be inadequately designed or enforced, potentially resulting in disclosure of confidential commercial information. In addition, the NIH, in collaboration with the FDA, has developed an Internet site, ClinicalTrials.gov, which provides public access to information on clinical trials and their results for a wide range of diseases and conditions. Future disclosures of such confidential commercial information may result in loss of advantage of competitive secrets.

The legal proceedings to obtain and defend patents, and litigation of third-party claims of intellectual property infringement, could require us to spend money and could impair our operations.

Our success will depend in part on our ability to obtain patent protection for our products and processes, both in the United States and in other countries. The patent positions of biotechnology and pharmaceutical companies, however, can be highly uncertain and involve complex legal and factual questions. Therefore, it is difficult to predict the breadth of claims allowed in the biotechnology and pharmaceutical fields.

We also rely on confidentiality agreements with our corporate collaborators, employees, consultants and certain contractors to protect our proprietary technologies. However, these agreements may be breached and we may not have

adequate remedies for such breaches. In addition, our trade secrets may otherwise become known or independently discovered by our competitors.

Protecting intellectual property rights can be very expensive. Litigation may be necessary to enforce patents issued to us or to determine the scope and validity of third-party proprietary rights. Moreover, if a competitor were to file a patent application claiming technology also invented by us, we would have to participate in an interference proceeding before the U.S. Patent and Trademark Office to determine the priority of the invention. We may be drawn into interferences with third parties or may have to provoke interferences ourselves to unblock third-party patent rights to allow us or our licensees to commercialize products based on our technologies. Litigation could result in substantial costs and the diversion of management's efforts regardless of the results of the litigation. An unfavorable result in litigation could subject us to significant liabilities to third parties, require disputed rights to be licensed or require us to cease using some technologies.

Our products and processes may infringe, or be found to infringe, patents not owned or controlled by us. Patents held by others may require us to alter our products or processes, obtain licenses, or stop activities. If relevant claims of third-party patents are upheld as valid and enforceable, we could be prevented from practicing the subject matter claimed in the patents, or may be required to obtain licenses or redesign our products or processes to avoid infringement. In addition, we could be required to pay money damages. A number of genetic sequences or proteins encoded by genetic sequences that we are investigating are, or may become, patented by others. As a result, we may have to obtain licenses to test, use or market these products. Our business will suffer if we are not able to obtain licenses at all or on terms commercially reasonable to us and we are not able to redesign our products or processes to avoid infringement.

We have incurred costs in several legal proceedings involving our intellectual property rights in Europe, Japan and Canada. We may continue to incur costs to defend and prosecute patents and patent applications in these and other regions.

# Competition and technological change may make our product candidates and technologies less attractive or obsolete.

We compete with companies, including major pharmaceutical and biotechnology firms, that are pursuing other forms of treatment or prevention for diseases that we target. We also may experience competition from companies that have acquired or may acquire technologies from universities and other research institutions. As these companies develop their technologies, they may develop proprietary positions which may prevent us from successfully commercializing products.

Some of our competitors are established companies with greater financial and other resources than we have. Other companies may succeed in developing products and obtaining regulatory approval from the FDA or comparable foreign agencies faster than we do, or in developing products that are more effective than ours. Research and development by others may seek to render our technologies or products obsolete or noncompetitive or result in treatments or cures superior to any therapeutics developed by us.

# If we lose our key personnel or are unable to attract and retain additional personnel, we may not be able to achieve our business objectives.

We are highly dependent on our principal scientific, manufacturing, clinical, regulatory and management personnel, including Vijay B. Samant, our President and Chief Executive Officer. The loss of the services of these individuals might significantly delay or prevent the achievement of our objectives. We do not maintain "key person" life insurance on any of our personnel. We depend on our continued ability to attract, retain and motivate highly qualified management and scientific personnel. We face competition for qualified individuals from other companies, academic institutions, government entities and other organizations in attracting and retaining personnel. To pursue our product development plans, we may need to hire additional management personnel and additional scientific personnel to perform research and development, as well as additional personnel with expertise in clinical trials, government regulation and manufacturing. However, due to the reasons noted above, we may not be successful in hiring or retaining qualified personnel and therefore we may not be able to achieve our business objectives.

We have limited experience in manufacturing our product candidates in commercial quantities. We may not be able to comply with applicable manufacturing regulations or produce sufficient product for contract or commercial purposes.

The commercial manufacturing of vaccines and other biological products is a time-consuming and complex process, which must be performed in compliance with the FDA's current Good Manufacturing Practices, or cGMP, regulations. We may not be able to comply with the cGMP regulations, and our manufacturing process may be subject to delays, disruptions

or quality control problems. In addition, we may need to complete the installation and validation of additional large-scale fermentation and related purification equipment to produce the quantities of product expected to be required for commercial purposes. We have limited experience in manufacturing at this scale. Noncompliance with the cGMP regulations, the inability to complete the installation or validation of additional large-scale equipment, or other problems with our manufacturing process may limit or delay the development or commercialization of our product candidates, and cause us to breach our contract manufacturing service arrangements.

# We currently depend on third parties to conduct our clinical trials and may initially depend on third parties to manufacture our product candidates commercially.

We currently rely on third parties, including clinical research organizations, to perform critical services for us in connection with our clinical trials. Clinical research organizations are responsible for many aspects of the trials, including finding and enrolling subjects for testing and administering the trials. Although we rely on these third parties to conduct our clinical trials, we are responsible for ensuring that each of our clinical trials is conducted in accordance with its protocol and applicable regulations, including good clinical practices. Our reliance on third parties does not relieve us of these responsibilities and requirements. These third parties may not comply with all regulatory and contractual requirements or may not otherwise perform their services in a timely or acceptable manner, and we may need to enter into new arrangements with alternative third parties and our clinical trials may be extended, delayed or terminated. In addition, if such third parties fail to perform their obligations in compliance with our clinical trial protocols or applicable regulations, our clinical trials may not meet regulatory requirements or may need to be repeated. These risks also apply to the development activities of our collaborators and licensees, and we do not control our collaborators' and licensees' research and development, clinical trials or regulatory activities.

We may also initially depend on collaborators, licensees or other third parties to manufacture our product candidates in commercial quantities. There are a limited number of third parties that could manufacture our product candidates. We may be unable to enter into any arrangement for the commercial manufacture of our product candidates, and any arrangement we secure may not meet our requirements for manufacturing quality or quantity. Our dependence on third parties for the commercial manufacture of our product candidates may also reduce our profit margins and our ability to develop and deliver products in a timely manner.

# We have no marketing or sales experience, and if we are unable to develop our own sales and marketing capability, we may not be successful in commercializing our products.

Our current strategy is to market our proprietary products directly in the United States, but we currently do not possess pharmaceutical marketing or sales capabilities. To market and sell our proprietary products, we will need to develop a sales force and a marketing group with relevant pharmaceutical industry experience, or make appropriate arrangements with strategic partners to market and sell these products. Developing a marketing and sales force is expensive and time-consuming and could delay any product launch. If we are unable to successfully employ qualified marketing and sales personnel or develop other sales and marketing capabilities, we may not be able to generate sufficient product revenue to become profitable.

#### Healthcare reform and restrictions on reimbursement may limit our returns on potential products.

Our ability to earn sufficient returns on our products will depend in part on how much, if any, reimbursement for our products and related treatments will be available from:

- Government health administration authorities;
- Government agencies procuring biodefense products for military or public use, including some for which we may become a sole-source vendor;
- · Private health coverage insurers;
- Managed care organizations; and
- · Other organizations.

If we fail to obtain appropriate reimbursement, we could be prevented from successfully commercializing our potential products. There are ongoing efforts by governmental and third-party payers to contain or reduce the costs of healthcare through various reform measures. In the United States, the Federal government recently passed comprehensive healthcare reform legislation. Many of the details regarding the implementation of this legislation are yet to be determined

and we currently cannot predict whether or to what extent such implementation or adoption of reforms may impair our business.

Additionally, third-party payers are increasingly challenging the price of medical products and services. If purchasers or users of our products are not able to obtain adequate reimbursement for the cost of using our products, they may forego or reduce their use. Significant uncertainty exists as to the reimbursement status of newly approved healthcare products, and whether adequate third-party coverage will be available.

# We use hazardous materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development processes involve the controlled storage, use and disposal of hazardous materials and biological materials. Our hazardous materials include certain compressed gases, flammable liquids, acids and bases, and other toxic compounds. We are subject to federal, state and local regulations governing the use, manufacture, storage, handling and disposal of materials and waste products. Although we believe that our safety procedures for handling and disposing of these hazardous materials comply with the standards prescribed by law and regulation, the risk of accidental contamination or injury from hazardous materials cannot be completely eliminated. In the event of an accident, we could be held liable for any damages that result. We have insurance that covers our use of hazardous materials with the following coverage limits: up to \$25,000 per occurrence for losses related to the release of bio-contaminants, \$1 million per occurrence for losses from refrigerant contamination and \$25,000 per occurrence for losses from radioactive contamination. Any liability could exceed the limits or fall outside the coverage of our insurance. We could incur significant costs to comply with current or future environmental laws and regulations.

#### We may have significant product liability exposure.

We face an inherent business risk of exposure to product liability and other claims in the event that our technologies or products are alleged to have caused harm. We also have potential liability for products manufactured by us on a contract basis for third parties. Although we currently maintain product liability insurance in the amount of \$10 million in the aggregate plus additional coverage specific to the foreign countries where our clinical trials are being conducted, this insurance coverage may not be sufficient, and we may not be able to obtain sufficient coverage in the future at a reasonable cost. Our inability to obtain product liability insurance at an acceptable cost or to otherwise protect against potential product liability claims could prevent or inhibit the commercialization of any products developed by us or our collaborators, or our ability to manufacture products for third parties. If we are sued for any injury caused by our technologies or products, or by third-party products that we manufacture, our liability could exceed our insurance coverage and total assets.

#### (\*) Negative conditions in the global credit markets may impair the liquidity of a portion of our investment portfolio.

Our investment securities consist of high-grade auction rate securities, corporate debt securities and government agency securities. As of June 30, 2010, our long-term investments included (at par value) \$6.5 million auction rate securities secured by municipal bonds and student loans. At June 30, 2010, the auction rate securities we held maintained Standard and Poor's credit ratings of A or AAA. Our auction rate securities are debt instruments with a long-term maturity and with an interest rate that is reset in short intervals through auctions. Ongoing conditions in the global credit markets have prevented some investors from liquidating their holdings of auction rate securities because the amount of securities submitted for sale has exceeded the amount of purchase orders for such securities. If there is insufficient demand for the securities at the time of an auction, the auction may not be completed and the interest rates may be reset to predetermined rates. When auctions for these securities fail, the investments may not be readily convertible to cash until a future auction of these investments is successful or they are redeemed or mature.

Since February 2008, there has been insufficient demand at auction for all of our auction rate securities held at June 30, 2010. As a result, these affected securities are currently not liquid, and we could be required to hold them until they are redeemed by the issuer or to maturity. As of June 30, 2010, we had recognized \$1.5 million of losses related to those auction rate securities by adjusting their carrying value. The market value of these securities has partially recovered from the lows that created the loss. Any future decline in market value may result in additional losses being recognized.

In the event we need to access the funds that are in an illiquid state, we will not be able to do so without the possible loss of principal, until a future auction for these investments is successful or they are redeemed by the issuer or they mature. If we are unable to sell these securities in the market or they are not redeemed, then we may be required to hold them to maturity.

(\*)Our stock price could continue to be highly volatile and you may not be able to resell your shares at or above the price you pay for them.

The market price of our common stock, like that of many other life sciences companies, has been and is likely to continue to be highly volatile. From January 1, 2007, to June 30, 2010, our stock price has ranged from \$1.04 to \$6.99. The following factors, among others, could have a significant impact on the market price of our common stock:

- The results of our preclinical studies and clinical trials or announcements regarding our plans for future studies or trials, or those of our collaborators, licensees or competitors;
- · Evidence or lack of evidence of the safety or efficacy of our potential products or those of our collaborators, licensees or competitors;
- The announcement by us or our collaborators, licensees or competitors of technological innovations or new products;
- Developments concerning our patent or other proprietary rights or those of our collaborators, licensees or competitors, including litigation and challenges to our proprietary rights;
- Other developments with our collaborators or licensees, including our entry into new collaborative or licensing arrangements;
- Geopolitical developments, natural or man-made disease threats, or other events beyond our control;
- · U.S. and foreign governmental regulatory actions;
- · Changes or announcements in reimbursement policies;
- · Period-to-period fluctuations in our operating results;
- Market conditions for life science stocks in general;
- Changes in the collective short interest in our stock;
- · Changes in estimates of our performance by securities analysts; and
- Our cash balances, need for additional capital, and access to capital.

#### We are at risk of securities class action litigation due to our expected stock price volatility.

In the past, stockholders have brought securities class action litigation against a company following a decline in the market price of its securities. This risk is especially acute for us because life science companies have experienced greater than average stock price volatility in recent years and, as a result, have been subject to, on average, a greater number of securities class action claims than companies in other industries. To date, we have not been subject to class action litigation. However, we may in the future be the target of this litigation. Securities litigation could result in substantial costs and divert our management's attention and resources, and could seriously harm our business.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management.

Our certificate of incorporation and bylaws include anti-takeover provisions, such as a classified board of directors, a prohibition on stockholder actions by written consent, the authority of our board of directors to issue preferred stock without stockholder approval, and supermajority voting requirements for specified actions. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years. These provisions may delay or prevent an acquisition of us, even if the acquisition may be considered beneficial by some stockholders. In addition, they may discourage or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management.

# The issuance of preferred stock could adversely affect our common stockholders.

We have on file two effective shelf registration statements that collectively allow us to raise up to an additional \$140.2 million from the sale of common stock, preferred stock, debt securities and/or warrants and our restated certificate of incorporation authorizes us to issue up to 5,000,000 shares of preferred stock. The issuance of preferred stock could adversely affect the voting power of holders of our common stock, and reduce the likelihood that our common stockholders will receive dividend payments and payments upon liquidation. The issuance of preferred stock could also decrease the market price of our common stock, or have terms and conditions that could discourage a takeover or other transaction that might involve a premium price for our shares or that our stockholders might believe to be in their best interests.

# ITEM 6. EXHIBITS

Exhibit Number	Description of Document
3.1(i)(1)	Restated Certificate of Incorporation.
3.2(ii)	Amended and Restated Bylaws.
3.3(i)	Certificate of Amendment to Restated Certificate of Incorporation.
4.1(1)	Specimen Common Stock Certificate.
10.1	Amended and Restated Stock Incentive Plan of Vical Incorporated.
31.1	Certification of Vijay B. Samant, Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Jill M. Broadfoot, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Vijay B. Samant, Chief Executive Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Jill M. Broadfoot, Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

(1) Incorporated by reference to the exhibit of the same number filed with the Company's Registration Statement on Form S-3 (No. 33-95812) filed on August 15, 1995.

# SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned thereunto duly authorized.

Vical Incorporated

Date: August 6, 2010

By: /s/ JILL M. BROADFOOT

Jill M. Broadfoot Senior Vice President, Chief Financial Officer and Secretary (on behalf of the registrant and as the registrant's Principal Financial and Accounting Officer)

#### AMENDED AND RESTATED BYLAWS OF VICAL INCORPORATED

#### ARTICLE I

# MEETINGS OF STOCKHOLDERS

Section 1. <u>Place of Meetings</u>. All meetings of the stockholders shall be held at such place within or without the State of Delaware as may be fixed from time to time by the Board of Directors or the chief executive officer, or if not so designated, at the registered office of the corporation.

Section 2. <u>Annual Meeting</u>. Annual meetings of stockholders shall be held at such date and time as shall be designated from time to time by the Board of Directors or the chief executive officer and stated in the notice of meeting. At the annual meeting the stockholders shall elect by a plurality vote the number of directors equal to the number of directors of the class whose term expires at such meetings (or, if fewer, the number of directors properly nominated and qualified for election) to hold office until the third succeeding annual meeting of stockholders after their election.

At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. To be properly brought before an annual meeting, business must be specified in the notice of meeting (or any supplement thereto) given by or at the direction of the Board of Directors, otherwise properly brought before the meeting by a stockholder. In addition to any other applicable requirements, for business to be properly brought before an annual meeting by a stockholder must have given timely notice thereof in writing to the secretary of the corporation. To be timely, a stockholder's notice must be delivered to or mailed and received at the principal executive offices of the corporation, not less than fifty days nor more than seventy-five days prior to the meeting; provided, however, that in the event that less than sixty-five days' notice or prior public disclosure of the date of the meeting is given or made to stockholders, notice by the stockholder to be timely must be so received not later than the close of business on the 15th day following the day on which such notice of the date of the annual meeting was mailed or such public disclosure was made. A stockholder's notice to the secretary shall set forth as to each matter the stockholder proposes to bring before the annual meeting (i) a brief description of the business desired to be brought before the annual meeting and the reasons for conducting such business at the annual meeting, (ii) the name and record address of the stockholder proposing such business, (iii) the class and number of shares of the corporation which are beneficially owned by the stockholder and (iv) any material interest of the stockholder in such business.

Notwithstanding anything in these bylaws to the contrary, no business shall be conducted at the annual meeting except in accordance with the procedures set forth in this Section 2 by any stockholder of any business properly brought before the annual meeting in accordance with said procedure.

The chairman of an annual meeting shall, if the facts warrant, determine and declare to the meeting that business was not properly brought before the meeting in accordance with the provisions of this Section, and if the chairman should so determine, the chairman shall so declare to the meeting and any such business not properly brought before the meeting shall not be transacted.

- Section 3. Special Meetings. Special meetings of the stockholders, for any purpose or purposes, may, unless otherwise prescribed by statute or by the certificate of incorporation, be called only by the chief executive officer or by a resolution adopted by the affirmative vote of a majority of the Board of Directors. Business transacted at any special meeting shall be limited to matters relating to the purpose or purposes stated in the notice of meeting.
- Section 4. Notice of Meetings. Except as otherwise provided by law, written notice of each meeting of stockholders, annual or special, stating the place, date and hour of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be given not less than ten nor more than sixty days before the date of the meeting, to each stockholder entitled to vote at such meeting.
- Section 5. <u>Voting List</u>. The officer who has charge of the stock ledger of the corporation shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the city or town where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present.
- Section 6. Quorum. The holders of a majority of the stock issued and outstanding and entitled to vote thereat, present in person or represented by proxy, shall constitute a quorum at all meetings of the stockholders for the transaction of business, except as otherwise provided by statute, the certificate of incorporation or these bylaws.
- Section 7. Adjournments. Any meeting of stockholders may be adjourned from time to time to any other time and to any other place at which a meeting of stockholders may be held under these bylaws, which time and place shall be announced at the meeting, by a majority of the stockholders present in person or represented by proxy at the meeting and entitled to vote, though less than a quorum, or, if no stockholder is present or represented by proxy, by any officer entitled to preside at or to act as secretary of such meeting, without notice other than announcement at the meeting, until a quorum shall be present or represented. At such adjourned meeting at which a quorum shall be present or represented, any business may be transacted

which might have been transacted at the original meeting. If the adjournment is for more than thirty days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 8. Action at Meetings When a quorum is present at any meeting, the vote of the holders of a majority of the stock present in person or represented by proxy and entitled to vote on the question shall decide any question brought before such meeting, unless the question is one upon which by express provision of law, the certificate of incorporation or these bylaws, a different vote is required, in which case such express provision shall govern and control the decision of such question.

Section 9. Voting and Proxies. Unless otherwise provided in the certificate of incorporation, each stockholder shall at every meeting of the stockholders be entitled to one vote for each share of capital stock having voting power held of record by such stockholder. Each stockholder entitled to vote at a meeting of stockholders, or to express consent or dissent to corporate action in writing without a meeting, may authorize another person or persons to act for such stockholder by proxy; provided that the instrument authorizing such proxy to act shall have been executed in writing (which shall include telegraphing, cabling or other means of electronically transmitted written copy) by the stockholder personally or by the stockholder's duly authorized attorney in fact. No such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period.

Section 10. Action Without Meeting. No action required or permitted to be taken at any annual or special meeting of the stockholders of the corporation may be taken without a meeting and the power of the stockholders to consent in writing, without a meeting, to the taking of any action is specifically denied.

#### ARTICLE II

#### DIRECTORS

Section 1. Number, Election, Tenure and Qualification. The number of directors which shall constitute the whole board shall not be less than five nor more than eight. Within such limit, the number of directors shall be determined by resolution of the Board of Directors or by the stockholders at the annual meeting or at any special meeting of stockholders. The directors shall be elected at the annual meeting or at any special meeting of the stockholders, except as provided in Section 3 of this Article, and each director elected shall hold office until such director's successor is elected and qualified, unless sooner displaced. Directors need not be stockholders.

Section 2. Enlargement. The number of the Board of Directors may be increased at any time by vote of a majority of the directors then in office.

Section 3. Nominations. Subject to the rights of holders of any class or series of stock having a preference over the common stock as to dividends or upon liquidation, nominations for election to the Board of Directors of the corporation at a meeting of stockholders

may be made on behalf of the board by the nominating committee appointed by the board, or by any stockholder of the corporation entitled to vote for the election of directors at such meeting. Such nominations, other than those made by the nominating committee on behalf of the board, shall be made by notice in writing delivered or mailed by first class United States mail or a nationally recognized courier service, postage prepaid, to the secretary or assistant secretary of the corporation, and received by such officer not less than one hundred twenty days prior to any meeting of stockholders called for the election of directors; provided, however, that if less than one hundred days' notice of the meeting is given to stockholders, such nomination shall have been mailed or delivered to the secretary or the assistant secretary of the corporation not later than the close of business on the seventh day following the day on which the notice of meeting was mailed. Such notice shall set forth as to each proposed nominee who is not an incumbent director (i) the name, age, business address and, if known, residence address of each nominee proposed in such notice, (ii) the principal occupation or employment of each such nominee, (iii) the number of shares of stock of the Corporation which are beneficially owned by each such nominee and by the nominating stockholder, and (iv) any other information concerning the nominee that must be disclosed of nominees in proxy solicitations regulated by Regulation 14A of the securities Exchange Act of 1934.

The chairman of the meeting may, if the facts warrant, determine and declare to the meeting that a nomination was not made in accordance with the foregoing procedure, and if the chairman should so determine, the chairman shall so declare the meeting and the defective nomination shall be disregarded.

Section 4. <u>Vacancies</u>. Vacancies and newly created directorships resulting from any increase in the authorized number of directors may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and the directors so chosen shall hold office until the next annual election at which the term of the class to which they have been elected expires and until their successors are duly elected and shall qualify, unless sooner displaced. If there are no directors in office, then an election of directors may be held in the manner provided by statute. In the event of a vacancy in the Board of Directors, the remaining directors, except as otherwise provided by law or these bylaws, may exercise the powers of the full board until the vacancy is filled.

Section 5. <u>Resignation and Removal</u>. Any director may resign at any time upon written notice to the corporation at its principal place of business or to the chief executive officer or the secretary. Such resignation shall be effective upon receipt of such notice unless the notice specifies such resignation to be effective at some other time or upon the happening of some other event. Any director or the entire Board of Directors may be removed, but only for cause, by the holders of a majority of the shares then entitled to vote at an election of directors, unless otherwise specified by law or the certificate of incorporation.

Section 6. <u>General Powers</u>. The business and affairs of the corporation shall be managed by its Board of Directors, which may exercise all powers of the corporation and do all such lawful acts and things as are not by statute or by the certificate of incorporation or by these bylaws directed or required to be exercised or done by the stockholders.

Section 7. Chairman of the Board. If the Board of Directors appoints a chairman of the board, such chairman shall, when present, preside at all meetings of the stockholders and the Board of Directors. The chairman shall perform such duties and possess such powers as are customarily vested in the office of the chairman of the board or as may be vested in the chairman by the Board of Directors.

Section 8. Place of Meetings. The Board of Directors may hold meetings, both regular and special, either within or without the State of Delaware.

Section 9. Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and at such place as shall from time to time be determined by the board; provided that any director who is absent when such a determination is made shall be given prompt notice of such determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

Section 10. <u>Special Meetings</u>. Special meetings of the board may be called by the chief executive officer, secretary, or on the written request of two or more directors, or by one director in the event that there is only one director in office. Four hours' notice to each director, either personally or by telegram, cable, telecopy, commercial delivery service, telex or similar means sent to such director's business or home address, or two days' notice by written notice deposited in the mail or delivered by a nationally recognized courier service, shall be given to each director by the secretary or by the officer or one of the directors calling the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

Section 11. Quorum, Action at Meeting, Adjournments. At all meetings of the board, a majority of directors then in office, but in no event less than one third of the entire board, shall constitute a quorum for the transaction of business and the act of a majority of the directors present at any meeting at which there is a quorum shall be the act of the Board of Directors, except as may be otherwise specifically provided by law or by the certificate of incorporation. For purposes of this section, the term "entire board" shall mean the number of directors last fixed by the stockholders or directors, as the case may be, in accordance with law and these bylaws; provided, however, that if less than all the number so fixed of directors were elected, the "entire board" shall mean the greatest number of directors so elected to hold office at any one time pursuant to such authorization. If a quorum shall not be present at any meeting of the Board of Directors, a majority of the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum shall be present.

Section 12. <u>Action by Consent</u>. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the board or committee, as the case may be, consent thereto in writing or by electronic transmission, and the writing or writings or transmission or transmissions are filed with the minutes of proceedings of the board or committee.

Section 13. <u>Telephonic Meetings</u>. Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board of Directors or of any committee thereof may participate in a meeting of the Board of Directors or of any committee, as the case may be, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

Section 14. Committees. The Board of Directors may, by resolution passed by a majority of the whole board, designate one or more committees, each committee to consist of one or more of the directors of the corporation. The board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. Any such committee, to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to amending the certificate of incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the corporation's property and assets, recommending to the stockholders a dissolution of the corporation or a revocation of a dissolution, or amending the bylaws of the corporation; and, unless the resolution designating such committee or the certificate of incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock. Such committee or committees shall have such name or names as may be determined from time to time by resolution adopted by the Board of Directors. Each committee shall keep regular minutes of its meetings and make such reports to the Board of Directors as the Board of Directors may request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these bylaws for the conduct of its business by the Board of Directors.

Section 15. <u>Compensation</u>. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board of Directors shall have the authority to fix from time to time the compensation of directors. The directors may be paid their expenses, if any, of attendance at each meeting of the Board of Directors and the performance of their responsibilities as directors and may be paid a fixed sum for attendance at each meeting of the Board of Directors and/or a stated salary as director. No such payment shall preclude any director from serving the corporation or its parent or subsidiary corporations in any other capacity and receiving compensation therefor. The Board of Directors may also allow compensation for members of special or standing committees for service on such committees.

#### ARTICLE III

#### **OFFICERS**

Section 1. Enumeration. The officers of the corporation shall be chosen by the Board of Directors and shall be a president, a secretary and a treasurer and such other officers with such titles, terms of office and duties as the Board of Directors may from time to time determine,

including one or more vice-presidents, and one or more assistant secretaries and assistant treasurers. If authorized by resolution of the Board of Directors, the chief executive officer may be empowered to appoint from time to time assistant secretaries and assistant treasurers. Any number of offices may be held by the same person, unless the certificate of incorporation or these bylaws otherwise provide.

Section 2. <u>Election</u>. The Board of Directors at its first meeting after each annual meeting of stockholders shall choose a president, a secretary and a treasurer. Other officers may be appointed by the Board of Directors at such meeting, at any other meeting, or by written consent.

Section 3. Tenure. The officers of the corporation shall hold office until their successors are chosen and qualify, unless a different term is specified in the vote choosing or appointing such officer, or until such officer's earlier death, resignation or removal. Any officer elected or appointed by the Board of Directors or by the chief executive officer may be removed at any time by the affirmative vote of a majority of the Board of Directors or a committee duly authorized to do so, except that any officer appointed by the chief executive officer may also be removed at any time by the chief executive officer. Any vacancy occurring in any office of the corporation may be filled by the Board of Directors, at its discretion. Any officer may resign by delivering such officer's written resignation to the corporation at its principal place of business or to the chief executive officer or the secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some other time or upon the happening of some other event.

Section 4. <u>President.</u> The president shall be the chief operating officer of the corporation. The president shall also be the chief executive officer unless the Board of Directors otherwise provides. The president shall, unless the Board of Directors provides otherwise in a specific instance or generally, preside at all meetings of the stockholders and the Board of Directors, have general and active management of the business of the corporation and see that all orders and resolutions of the Board of Directors are carried into effect. The president shall execute bonds, mortgages, and other contracts requiring a seal, under the seal of the corporation, except where required or permitted by law to be otherwise signed and executed and except where the signing and execution thereof shall be expressly delegated by the Board of Directors to some other officer or agent of the corporation.

Section 5. <u>Vice-Presidents</u>. In the absence of the president or in the event of the president's inability or refusal to act, the vice-president, or if there be more than one vice-president, the vice-presidents in the order designated by the Board of Directors or the chief executive officer (or in the absence of any designation, then in the order determined by their tenure in office) shall perform the duties of the president, and when so acting, shall have all the powers of and be subject to all the restrictions upon the president. The vice-presidents shall perform such other duties and have such other powers as the Board of Directors or the chief executive officer may from time to time prescribe.

Section 6. Secretary. The secretary shall have such powers and perform such duties as are incident to the office of secretary. The secretary shall maintain a stock ledger and prepare lists of stockholders and their addresses as required and shall be the custodian of corporate

records. The secretary shall attend all meetings of the Board of Directors and all meetings of the stockholders and record all the proceedings of the meetings of the corporation and of the Board of Directors in a book to be kept for that purpose and shall perform like duties for the standing committees when required. The secretary shall give, or cause to be given, notice of all meetings of the stockholders and special meetings of the Board of Directors, and shall perform such other duties as may be from time to time prescribed by the Board of Directors or chief executive officer, under whose supervision the secretary shall be. The secretary shall have custody of the corporate seal of the corporation and the secretary, or an assistant secretary, shall have authority to affix the same to any instrument requiring it and when so affixed, it may be attested by the secretary's signature or by the signature of such assistant secretary. The Board of Directors may give general authority to any other officer to affix the seal of the corporation and to attest the affixing by such officer's signature.

Section 7. <u>Assistant Secretaries</u>. The assistant secretary, or if there be more than one, the assistant secretaries in the order determined by the Board of Directors, the chief executive officer or the secretary (or if there be no such determination, then in the order determined by their tenure in office), shall, in the absence of the secretary or in the event of the secretary's inability or refusal to act, perform the duties and exercise the powers of the secretary and shall perform such other duties and have such other powers as the Board of Directors, the chief executive officer or the secretary may from time to time prescribe. In the absence of the secretary or any assistant secretary at any meeting of stockholders or directors, the person presiding at the meeting shall designate a temporary or acting secretary to keep a record of the meeting.

Section 8. Treasurer. The treasurer shall perform such duties and shall have such powers as may be assigned to such officer by the Board of Directors or the chief executive officer. In addition, the treasurer shall perform such duties and have such powers as are incident to the office of treasurer. The treasurer shall have the custody of the corporate funds and securities and shall keep full and accurate accounts of receipts and disbursements in books belonging to the corporation and shall deposit all moneys and other valuable effects in the name and to the credit of the corporation in such depositories as may be designated by the Board of Directors. The treasurer shall disburse the funds of the corporation as may be ordered by the Board of Directors, taking proper vouchers for such disbursements, and shall render to the chief executive officer and the Board of Directors, when the chief executive officer or Board of Directors so requires, an account of all such officer's transactions as treasurer and of the financial condition of the corporation.

Section 9. <u>Assistant Treasurers</u>. The assistant treasurer, or if there shall be more than one, the assistant treasurers in the order determined by the Board of Directors, the chief executive officer or the treasurer (or if there be no such determination, then in the order determined by their tenure in office), shall, in the absence of the treasurer or in the event of the treasurer's inability or refusal to act, perform the duties and exercise the powers of the treasurer and shall perform such other duties and have such other powers as the Board of Directors, the chief executive officer or the treasurer may from time to time prescribe.

Section 10. Bond. If required by the Board of Directors, any officer shall give the corporation a bond in such sum and with such surety or sureties and upon such terms and

conditions as shall be satisfactory to the Board of Directors, including without limitation a bond for the faithful performance of the duties of such officer's office and for the restoration to the corporation of all books, papers, vouchers, money and other property of whatever kind in such officer's possession or under such officer's control and belonging to the corporation.

Section 11. <u>Delegation of Authority</u>. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officers or agents, notwithstanding any provision hereof.

#### ARTICLE IV

#### NOTICES

Section 1. <u>Delivery</u>. Whenever, under the provisions of law, or of the certificate of incorporation or these bylaws, written notice is required to be given to any director or stockholder, such notice may be given by mail, addressed to such director or stockholder, at such person's address as it appears on the records of the corporation, with postage thereon prepaid, and such notice shall be deemed to be given at the time when the same shall be deposited in the United States mail or delivered to a nationally recognized courier service. Unless written notice by mail is required by law, written notice may also be given by telegram, cable, telecopy, commercial delivery services, telex or similar means, addressed to such director or stockholder at such person's address as it appears on the records of the corporation, in which case such notice shall be deemed to be given when delivered into the control of the persons charged with effecting such transmission, the transmission charge to be paid by the corporation or the person sending such notice and not by the addressee. Oral notice or other in-hand delivery, in person or by telephone, shall be deemed given at the time it is actually given.

Section 2. Waiver of Notice. Whenever any notice is required to be given under the provisions of law or of the certificate of incorporation or of these bylaws, a waiver thereof in writing, signed by the person or persons entitled to said notice, whether before or after the time stated therein, shall be deemed equivalent thereto.

#### ARTICLE V

# INDEMNIFICATION

Section 1. Actions Other than by or in the Right of the Corporation The corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or

proceedings, had no reasonable cause to believe such person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person 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 reasonable cause to believe that such person's conduct was unlawful.

Section 2. Actions by or in the Right of the Corporation. The corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that such person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable for negligence or misconduct in the performance of such person's duty to the corporation unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery of the State of Delaware or such other court shall deem proper.

Section 3. Success on the Merits. To the extent that any person described in Section 1 or 2 of this Article V has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in said Sections, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

Section 4. Specific Authorization. Any indemnification under Section 1 or 2 of this Article V (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of any person described in said Sections is proper in the circumstances because such person has met the applicable standard of conduct set forth in said Sections. Such determination shall be made (1) by the Board of Directors by a majority vote of a quorum consisting of directors who were not parties to such action, suit or proceeding, or (2) if such a quorum is not obtainable, or even if obtainable a quorum of disinterested directors so directs, by independent legal counsel in a written opinion, or (3) by the stockholders of the corporation.

Section 5. <u>Advance Payment.</u> Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding as authorized by the Board of Directors in the manner provided for in Section 4 of this Article V upon receipt of an undertaking by or on behalf of any person described in said Section to repay such amount unless it shall ultimately be determined that such person is entitled to indemnification by the corporation as authorized in this Article V.

Section 6. Non-Exclusivity. The indemnification provided by this Article V shall not be deemed exclusive of any other rights to which those indemnified may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be director, officer, employee or agent of the corporation and shall inure to the benefit of the heirs, executors and administrators of such a person.

Section 7. Insurance. The Board of Directors may authorize, by a vote of the majority of the full board, the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under the provisions of this Article V.

Section 8. Severability. If any word, clause or provision of this Article V or any award made hereunder shall for any reason be determined to be invalid, the provisions hereof shall not otherwise be affected thereby but shall remain in full force and effect.

Section 9. Intent of Article. The intent of this Article V is to provide for indemnification to the fullest extent permitted by section 145 of the General Corporation Law of Delaware. To the extent that such Section or any successor section may be amended or supplemented from time to time, this Article V shall be amended automatically and construed so as to permit indemnification to the fullest extent from time to time permitted by law.

# ARTICLE VI

# CAPITAL STOCK

Section 1. Certificates of Stock. Every holder of stock in the corporation shall be entitled to have a certificate, signed by, or in the name of the corporation by, the chairman or vice-chairman of the Board of Directors, or the president or a vice-president and the treasurer or an assistant treasurer, or the secretary or an assistant secretary of the corporation, certifying the number of shares owned by such stockholder in the corporation. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. Certificates may be issued for partly paid shares and in such case upon the face or back of the certificates issued to represent any such partly paid shares, the total amount of the consideration to be paid therefor, and the amount paid thereon shall be specified.

Section 2. Lost Certificates. The Board of Directors may direct a new certificate or certificates to be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen or destroyed. When authorizing such issue of a new

certificate or certificates, the Board of Directors may, in its discretion and as a condition precedent to the issuance thereof, require the owner of such lost, stolen or destroyed certificate or certificates, or such owner's legal representative, to give reasonable evidence of such loss, theft or destruction, to advertise the same in such manner as it shall require and/or to give the corporation a bond in such sum as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen or destroyed or the issuance of such new certificate.

Section 3. <u>Transfer of Stock</u>. Upon surrender to the corporation or the transfer agent of the corporation of a certificate for shares, duly endorsed or accompanied by proper evidence of succession, assignment or authority to transfer, and proper evidence of compliance with other conditions to rightful transfer, it shall be the duty of the corporation to issue a new certificate to the person entitled thereto, cancel the old certificate and record the transaction upon its books.

Section 4. Record Date for Action at a Meeting or for Other Purposes In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which shall not be more than sixty days nor less than ten days before the date of such meeting, nor more than sixty days prior to any other action to which such record date relates. A determination of stockholders of record entitled to notice of or to vote at a meeting of Stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting. If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which the meeting is held. The record date for determining stockholders for any other purpose within this Section 4 shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

Section 5. <u>Registered Stockholders</u>. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and to hold liable for calls and assessments a person registered on its books as the owner of shares, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

# ARTICLE VII

# CERTAIN TRANSACTIONS

Section 1. <u>Transactions with Interested Parties</u> No contract or transaction between the corporation and one or more of its directors or officers, or between the corporation and any other corporation, partnership, association or other organization in which one or more of its directors or officers are directors or have a financial interest, shall be void or voidable solely for

this reason, or solely because the director or officer is present at or participates in the meeting of the board or committee thereof which authorizes the contract or transaction or solely because the vote or votes of such director or officer are counted for such purpose, if:

- (a) the material facts as to such person's relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; or
- (b) the material facts as to such person's relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or
- (c) the contract or transaction is fair as to the corporation as of the time it is authorized, approved or ratified, by the Board of Directors, a committee thereof, or the stockholders.
- Section 2. Quorum. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

# ARTICLE VIII

#### GENERAL PROVISIONS

- Section 1. <u>Dividends</u>. Dividends upon the capital stock of the corporation, if any, may be declared by the Board of Directors at any regular or special meeting or by written consent, pursuant to law. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the certificate of incorporation.
- Section 2. Reserves. The directors may set apart out of any funds of the corporation available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve.
- Section 3. Checks. All checks or demands for money and notes of the corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.
  - Section 4. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.
- Section 5. <u>Seal</u>. The Board of Directors may, by resolution, adopt a corporate seal. The corporate seal shall have inscribed thereon the name of the corporation, the year of its organization and the word "Delaware." The seal may be used by causing it or a facsimile thereof to be impressed or affixed or otherwise reproduced. The seal may be altered from time to time by the Board of Directors.

# ARTICLE IX

# AMENDMENTS

The Board of Directors is expressly empowered to adopt, amend or repeal these bylaws, provided, however, that any adoption, amendment or repeal of these bylaws by the Board of Directors shall require-the approval of at least sixty-six and two-thirds percent (66 ²/3%) of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any resolution providing for adoption, amendment or repeal is presented to the board). The stockholders shall also have power to adopt, amend or repeal these bylaws, provided, however, that in addition to any vote of the holders of any class or series of stock of this corporation required by law or by the certificate of incorporation of this corporation, the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 ²/3%) of the voting power of all of the then outstanding shares of the stock of the corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required for such adoption, amendment or repeal by the stockholders of any provisions of these bylaws.

# **CERTIFICATE OF AMENDMENT TO THE**

## RESTATED CERTIFICATE OF INCORPORATION

# <u>OF</u>

# **VICAL INCORPORATED**

Vical Incorporated, a corporation organized and existing under the laws of the State of Delaware, hereby certifies as follows:

FIRST: The name of the corporation is Vical Incorporated.

SECOND: The date of filing of its original Certificate of Incorporation with the Secretary of State of Delaware was April 30, 1987.

THIRD: At a meeting of the Board of Directors of Vical Incorporated, resolutions were duly adopted providing that the first sentence of Paragraph A of Article IV of the Restated Certificate of Incorporation of Vical Incorporated, as amended, shall be amended and restated to read in its entirety as follows:

"Classes of Stock. The total number of shares of all classes of capital stock which the corporation shall have authority to issue is One Hundred Sixty-Five Million (165,000,000), of which One Hundred Sixty Million (160,000,000) shares of the par value of One Cent (\$0.01) each shall be Common Stock (the "Common Stock") and five million (5,000,000) shares of the par value of One Cent (\$0.01) each shall be Preferred Stock (the "Preferred Stock")."

FOURTH: This Certificate of Amendment to the Restated Certificate of Incorporation was duly adopted at the annual meeting of the stockholders, which was duly called and held, upon notice in accordance with Section 222 of the General Corporation Law of the State of Delaware, by the holders of at least a majority of the corporation's outstanding stock in accordance with section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS THEREOF, Vical Incorporated has caused this certificate to be signed by the undersigned officer, thereunto duly authorized, this 2nd day of June, 2010.

VICAL INCORPORATED

By: /s/ Vijay B. Samant
Vijay B. Samant
President and CEO

# AMENDED AND RESTATED STOCK INCENTIVE PLAN OF VICAL INCORPORATED

#### SECTION 1. ESTABLISHMENT AND PURPOSE.

The Plan was adopted on October 14, 1992. The Plan was amended and restated effective as of January 7, 1993, was amended and restated effective as of December 4, 1996, was amended and restated effective March 21, 1998, was amended and restated effective March 22, 1999, was amended and restated effective May 30, 2001, was amended and restated effective June 14, 2002, was amended and restated effective May 21, 2003, was amended and restated effective May 10, 2004, was amended and restated effective May 10, 2006, was amended and restated effective May 23, 2007, was amended and restated effective March 26, 2009, was amended effective May 24, 2010 and was amended and restated effective May 25, 2010.

The purpose of the Plan is to offer Employees an opportunity to acquire a proprietary interest in the success of the Company, or to increase such interest, by purchasing Shares of the Company's Stock. The Plan provides both for the direct award or sale of Shares and for the grant of Options to purchase Shares. Options granted under the Plan may include NSOs as well as ISOs intended to qualify under Section 422 of the Code.

The Plan is intended to comply in all respects with Rule 16b-3 (or its successor) under the Exchange Act and shall be construed accordingly.

## **SECTION 2. DEFINITIONS.**

- (a) "Board of Directors" shall mean the Board of Directors of the Company, as constituted from time to time.
- (b) "Change in Control" shall mean the occurrence of either of the following events:
  - (i) A change in the composition of the Board of Directors, as a result of which fewer than one-half of the incumbent directors are directors who either:
    - (A) Had been directors of the Company 24 months prior to such change; or
    - (B) Were elected, or nominated for election, to the Board of Directors with the affirmative votes of at least a majority of the directors who had been directors of the Company 24 months prior to such change and who were still in office at the time of the election or nomination; or (ii) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) by the acquisition or aggregation of securities is or becomes the beneficial owner, directly or indirectly, of securities of the Company representing 50 percent or more of the combined voting power of the Company's then outstanding securities ordinarily (and apart from rights accruing under special circumstances) having the right to vote at elections of directors (the "Base Capital Stock"); except that any change in the relative beneficial ownership of the Company's securities by any person resulting solely from a reduction in the aggregate number of outstanding shares of Base Capital Stock, and any decrease thereafter in such person's ownership of securities, shall be disregarded until such person increases in any manner, directly or indirectly, such person's beneficial ownership of any securities of the Company.
- (c) "Code" shall mean the Internal Revenue Code of 1986, as amended.
- (d) "Committee" shall mean a committee of the Board of Directors, as described in Section 3(a).
- (e) "Common-Law Employee" means an individual paid from W-2 Payroll of the Company or a Subsidiary. If, during any period, the Company (or a Subsidiary, as applicable) has not treated an individual as a Common-Law Employee and, for that reason, has not withheld employment taxes with respect to him or her, then that individual shall not be an Employee for that period, even if any person, court of law or government agency determines, retroactively, that individual is or was a Common-Law Employee during all or any portion of that period.

- (f) "Company" shall mean Vical Incorporated, a Delaware corporation.
- (g) "Employee" shall mean (i) any individual who is a Common-Law Employee of the Company or of a Subsidiary or (ii) an Outside Director and (iii) a consultant or adviser who provides services to the Company or a Subsidiary as an independent contractor. Service as an Outside Director or as an independent contractor shall be considered employment for all purposes of the Plan except as provided in Section 4(b).
- (h) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended.
- (i) "Exercise Price" shall mean the amount for which one Share may be purchased upon exercise of an option, as specified by the Committee in the applicable Stock Option Agreement.
- (j) "Fair Market Value" shall mean the market price of Stock, determined by the Committee as follows:
  - (i) If Stock was traded over-the-counter on the date in question then the Fair Market Value shall be equal to the mean between the last reported representative bid and asked prices quoted for such date by the principal automated inter-dealer quotation system on which Stock is quoted;
  - (ii) If Stock was traded on a stock exchange on the date in question, then the Fair Market Value shall be equal to the closing price reported by the applicable composite transactions report for such date; and
  - (iii) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate. Whenever possible, the determination of Fair Market Value by the Committee shall be based on the prices reported in the Western Edition of THE WALL STREET JOURNAL. Such determination shall be conclusive and binding on all persons.
- (k) "Incentive Stock Option" or "ISO" shall mean an employee incentive stock option described in Section 422(b) of the Code.
- (1) "Nonstatutory Option" or "NSO" shall mean an employee stock option not described in Sections 422(b) or 423(b) of the Code.
- (m) "Offeree" shall mean an individual to whom the Committee has offered the right to acquire Shares under the Plan (other than upon exercise of an Option).
- (n) "Option" shall mean an ISO or NSO granted under the Plan and entitling the holder to purchase Shares.
- (o) "Optionee" shall mean an individual who holds an Option.
- (p) "Outside Director" shall mean a member of the Board of Directors who is not a Common-Law Employee of the Company or of a Subsidiary.
- (q) "Plan" shall mean this Stock Incentive Plan of Vical Incorporated, formerly the 1992 Stock Plan of Vical Incorporated.
- (r) "Purchase Price" shall mean the consideration for which one Share may be acquired under the Plan (other than upon exercise of an Option), as specified by the Committee.
- (s) "Service" shall mean service as an Employee.
- (t) "Share" shall mean one share of Stock, as adjusted in accordance with Section 9 (if applicable).
- (u) "Stock" shall mean the Common Stock (\$.01 par value) of the Company.
- (v) "Stock Option Agreement" shall mean the agreement between the Company and an Optionee, which contains the terms, conditions and restrictions pertaining to the Optionee's Option.
- (w) "Stock Purchase Agreement" shall mean the agreement between the Company and an Offeree who acquires Shares under the Plan, which contains the terms, conditions and restrictions pertaining to the acquisition of such Shares.

- (x) "Subsidiary" shall mean any corporation if the Company and/or one or more other Subsidiaries own not less than 50 percent of the total combined voting power of all classes of outstanding stock of such corporation. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.
- (y) "Total and Permanent Disability" shall mean that the Optionee is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted, or can be expected to last, for a continuous period of not less than one year.
- (z) "W-2 Payroll" shall mean whatever mechanism or procedure that the Company or a Subsidiary utilizes to pay any individual which results in the issuance of a Form W-2 to the individual. "W-2 Payroll" does not include any mechanism or procedure which results in the issuance of any form other than a Form W-2 to an individual, including, but not limited to, any Form 1099 which may be issued to an independent contractor, an agency employee or a consultant. Whether a mechanism or procedure qualifies as a "W-2 Payroll" shall be determined in the absolute discretion of the Company (or Subsidiary, as applicable), and the Company or Subsidiary determination shall be conclusive and binding on all persons.

#### SECTION 3. ADMINISTRATION.

- (a) Committee Composition. The Plan shall be administered by the Committee. Except as provided below, the Committee shall consist exclusively of directors of the Company, who shall be appointed by the Board. In addition, the composition of the Committee shall satisfy:
  - (i) Such requirements, if any, as the Securities and Exchange Commission may establish for administrators acting under plans intended to qualify for exemption under Rule 16b-3 (or its successor) under the Exchange Act; and
  - (ii) Such requirements as the Internal Revenue Service may establish for outside directors acting under plans intended to qualify for exemption under Section 162(m)(4)(C) of the Code.

The Board may act on its own behalf with respect to Outside Directors and may also appoint one or more separate committees composed of one or more officers of the Company, who need not be directors of the Company and who need not satisfy the foregoing requirements, who may administer the Plan with respect to Employees who are not "covered employees" under Section 162(m)(3) of the Code and who are not required to report pursuant to Section 16(a) of the Exchange Act.

(b) Committee Responsibilities. The Committee shall (i) select the Employees who are to receive Options and other rights to acquire shares under the Plan, (ii) determine the type, number, vesting requirements and other features and conditions of such Options or other rights, (iii) interpret the Plan and (iv) make all other decisions relating to the operation of the Plan. The Committee may adopt such rules or guidelines as it deems appropriate to implement the Plan. The Committee's determinations under the Plan shall be final and binding on all persons.

#### **SECTION 4. ELIGIBILITY.**

- (a) General Rules. Only Employees (including, without limitation, independent contractors who are not members of the Board) shall be eligible for designation as Optionees or Offerees by the Committee.
- (b) *Incentive Stock Options*. Only Employees who are Common-Law Employees of the Company or a Subsidiary shall be eligible for the grant of ISOs. In addition, an Employee who owns more than 10% of the total combined voting power of all classes of outstanding stock of the Company or any of its Subsidiaries shall not be eligible for the grant of an ISO unless the requirements set forth in Section 422(c)(5) of the Code are satisfied.

### SECTION 5. STOCK SUBJECT TO PLAN.

(a) Basic Limitation. Shares offered under the Plan shall be authorized but unissued Shares or treasury Shares. The aggregate number of Shares which may be issued under the Plan (upon exercise of Options or other rights to acquire Shares) shall not exceed 12,700,000 Shares (subject to adjustment pursuant to Section 9). Of the

Shares available hereunder, no more than 30% in the aggregate shall be available with respect to Outside Directors, subject to adjustment pursuant to Section 9. The number of Shares that are subject to Options or other rights outstanding at any time under the Plan shall not exceed the number of Shares that then remain available for issuance under the Plan. The Company, during the term of the Plan, shall at all times reserve and keep available sufficient Shares to satisfy the requirements of the Plan. Notwithstanding any other provision of the Plan, no Employee shall receive a grant of more than 1,300,000 Shares in any calendar year; provided that Shares subject to awards which are not Options and which do not vest upon the satisfaction of performance goals shall be excluded from such limitation.

(b) Additional Shares. In the event that any outstanding option or other right for any reason expires or is canceled or otherwise terminated, the Shares allocable to the unexercised portion of such Option or other right shall again be available for the purposes of the Plan. In the event that Shares issued under the Plan are reacquired by the Company pursuant to any forfeiture provision, right of repurchase or right of first refusal, such Shares shall again be available for the purposes of the Plan, provided, however, that no such reacquired Shares may be used for the grant of an ISO.

#### SECTION 6. TERMS AND CONDITIONS OF AWARDS OR SALES.

- (a) Stock Purchase Agreement. Each award or sale of Shares under the Plan (other than upon exercise of an option) shall be evidenced by a Stock Purchase Agreement between the Offeree and the Company. Such award or sale shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Purchase Agreement. The provisions of the various Stock Purchase Agreements entered into under the Plan need not be identical.
- (b) Duration of Offers and Non-Transferability of Rights. Any right to acquire Shares under the Plan (other than an Option) shall automatically expire if not exercised by the Offeree within 30 days after the grant of such right was communicated to the Offeree by the Committee. Such right shall not be transferable and shall be exercisable only by the Offeree to whom such right was granted.
- (c) Purchase Price. The Purchase Price of Shares to be offered under the Plan shall not be less than the par value of such Shares. Subject to the preceding sentence, the Purchase Price shall be determined by the Committee in its sole discretion. The Purchase Price shall be payable in a form described in Section 8.
- (d) Withholding Taxes. As a condition to the purchase of Shares, the Offeree shall make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with such purchase. The Committee may permit the Offeree to satisfy all or part of his or her tax obligations related to such Shares by having the Company withhold a portion of any Shares that otherwise would be issued to him or her or by surrendering any Shares that previously were acquired by him or her. The Shares withheld or surrendered shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. The payment of taxes by assigning Shares to the Company, if permitted by the Committee, shall be subject to such restrictions as the Committee may impose, including any restrictions required by rules of the Securities and Exchange Commission.
- (e) Restrictions on Transfer of Shares. Any Shares awarded or sold under the Plan shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Stock Purchase Agreement and shall apply in addition to any restrictions that may apply to holders of Shares generally.
- (f) Effect of Change in Control The Committee may set forth in an Offeree's Stock Purchase Agreement, or in any subsequent written agreement between the Company and the Offeree, terms upon which the Shares shall become fully vested on an accelerated basis in the event that a Change in Control occurs with respect to the Company; provided, however, that in the absence of any such terms, no such acceleration shall occur with respect to the Shares.

#### SECTION 7. TERMS AND CONDITIONS OF OPTIONS.

- (a) Stock Option Agreement. Each grant of an Option under the Plan shall be evidenced by a Stock Option Agreement between the Optionee and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Option Agreement. The Stock Option Agreement shall specify whether the Option is an ISO or an NSO. The provisions of the various Stock Option Agreements entered into under the Plan need not be identical.
- (b) Number of Shares. Each Stock Option Agreement shall specify the number of Shares that are subject to the Option and shall provide for the adjustment of such number in accordance with Section 9.
- (c) Exercise Price. Each Stock Option Agreement shall specify the Exercise Price; provided that the Exercise Price shall in no event be less than 100% of the Fair Market Value of a Share on the date of grant (except as a higher percentage may be required by Section 4(b)). Subject to the preceding sentence, the Exercise Price under any Option shall be determined by the Committee at its sole discretion. The Exercise Price shall be payable in a form described in Section 8.
- (d) Withholding Taxes. As a condition to the exercise of an Option, the Optionee shall make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with such exercise. The Optionee shall also make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with the disposition of Shares acquired by exercising an Option. The Committee may permit the Optionee to satisfy all or part of his or her tax obligations related to the Option by having the Company withhold a portion of any Shares that otherwise would be issued to him or her or by surrendering any Shares that previously were acquired by him or her. Such Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. The payment of taxes by assigning Shares to the Company, if permitted by the Committee, shall be subject to such restrictions as the Committee may impose, including any restrictions required by rules of the Securities and Exchange Commission.
- (e) Exercisability. Each Stock Option Agreement shall specify the date when all or any installment of the Option is to become exercisable. The vesting of any Option shall be determined by the Committee at its sole discretion. A Stock Option Agreement may provide for accelerated exercisability in the event of the Optionee's death, Total and Permanent Disability, retirement or other events.
- (f) Effect of Change in Control. The Committee may set forth in an Optionee's Stock Option Agreement, or in any subsequent written agreement between the Company and the Optionee, terms upon which the Option grant shall become exercisable on an accelerated basis n the event that a Change in Control occurs with respect to the Company provided, however, that in the absence of any such terms, no such acceleration shall occur with respect to the Option.
- (g) *Term.* The Stock Option Agreement shall specify the term of the Option. The term shall not exceed 10 years from the date of grant, except as otherwise provided in Section 4(b). Subject to the preceding sentence, the Committee at its sole discretion shall determine when an Option is to expire.
- (h) Non-Transferability. An option granted under the Plan shall not be anticipated, assigned, attached, garnished, optioned, transferred or made subject to any creditor's process, whether voluntarily, involuntarily or by operation of law, except as approved by the Committee. Notwithstanding the foregoing, ISOs may not be transferable. However, this Section 7 shall not preclude an Optionee from designating a beneficiary who will receive any outstanding Options in the event of the Optionee's death, nor shall it preclude a transfer of Options by will or by the laws of descent and distribution.
- (i) Termination of Service (except by death). If an Optionee's Service terminates for any reason other than the Optionee's death, then the Optionee's Option(s) shall, except to the extent determined by the Committee, expire on the earliest of the following occasions:
  - (i) The expiration date determined pursuant to Subsection (g) above;

- (ii) The date 90 days (or such longer or shorter period as provided in Optionee's Stock Option Agreement) after the termination of the Optionee's Service for any reason other than Total and Permanent Disability; or
- (iii) The date six months after the termination of the Optionee's Service by reason of Total and Permanent Disability.

The Optionee may exercise all or part of the Optionee's Option(s) at any time before the expiration of such Option(s) under the preceding sentence, but only to the extent that such Option(s) had become exercisable before the Optionee's Service terminated. The balance of such Option(s) shall lapse when the Optionee's Service terminates. In the event that the Optionee dies after the termination of the Optionee's Service but before the expiration of the Optionee's Option(s), all or part of such Option(s) may be exercised (prior to expiration) by the executors or administrators of the Optionee's estate or by any person who has acquired such Option(s) directly from the Optionee by bequest, beneficiary designation or inheritance, but only to the extent that such Option(s) had become exercisable before the Optionee's Service terminated.

- (j) Leaves of Absence. For purposes of Subsection (i) above, Service shall, except to the extent determined by the Committee, be deemed to continue while the Optionee is on military leave, sick-leave or other bona fide leave of absence (as determined by the Committee). The foregoing notwithstanding, in the case of an ISO granted under the Plan, Service shall not be deemed to continue beyond the first 90 days of such leave, unless the Optionee's reemployment rights are guaranteed by statute or by contract.
- (k) Death of Optionee. If an Optionee dies while the Optionee is in Service, then the Optionee's Option(s) shall, except to the extent determined by the Committee, expire on the earlier of the following dates:
  - (i) The expiration date determined pursuant to Subsection (g) above; or
  - (ii) The date six months (or such longer or shorter period as provided in Optionee's Stock Option Agreement) after the Optionee's death.

All or part of the Optionee's Option(s) may be exercised at any time before the expiration of such Option(s) under the preceding sentence by the executors or administrators of the Optionee's estate or by any person who has acquired such Option(s) directly from the Optionee by bequest, beneficiary designation or inheritance, but only to the extent that such Option(s) had become exercisable before the Optionee's death. The balance of such Option(s) shall lapse when the Optionee dies.

- (1) No Rights as a Stockholder. An Optionee, or a transferee of an Optionee, shall have no rights as a stockholder with respect to any Shares covered by the Optionee's Option until such person is entitled, pursuant to the terms of such Option, to receive such Shares. No adjustments shall be made, except as provided in Section 9.
- (m) Modification, Extension and Assumption of Options. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding Options; provided that the Committee may not (i) amend the Exercise Price of outstanding Options granted by the Company, (ii) accept the cancellation of outstanding Options granted by the Company in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price or (iii) accept in return for cash payments the cancellation of outstanding Options granted by the Company having an Exercise Price greater than the then existing Fair Market Value. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Optionee, impair the Optionee's rights or increase the Optionee's obligations under such Option.
- (n) Restrictions on Transfer of Shares. Any Shares issued upon exercise of an Option shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Stock Option Agreement and shall apply in addition to any restrictions that may apply to holders of Shares generally.

#### SECTION 8. PAYMENT FOR SHARES.

(a) General Rule. The entire Purchase Price or Exercise Price of Shares issued under the Plan shall be payable in lawful money of the United States of America at the time when such Shares are purchased, except as provided in Subsections (b), (c), (d) and (e) below. The foregoing notwithstanding, no portion of the Exercise Price or Purchase Price (as the case may be) of Shares issued under the Plan may be paid with a promissory note.

(b) Surrender of Stock. To the extent that a Stock Option Agreement so provides, payment may be made all or in part with Shares which have already been owned by the Optionee or the Optionee's representative for more than six months and which are surrendered to the Company in good form for transfer. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan.

#### (c) [Reserved].

- (d) Exercise/Sale. To the extent that a Stock Option Agreement so provides, payment may be made all or in part by the delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker approved by the Company to sell Shares and to deliver all or part of the sales proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.
- (e) Exercise/Pledge. To the extent that a Stock Option Agreement so provides, payment may be made all or in part by the delivery (on a form prescribed by the Company) of an irrevocable direction to pledge Shares to a securities broker or lender approved by the Company, as security for a loan, and to deliver all or part of the loan proceeds to the Company in payment of all or part of the Exercise Price and any withholding taxes.

#### SECTION 9. ADJUSTMENT OF SHARES.

- (a) *General*. In the event of a subdivision of the outstanding Stock, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the value of Shares, a combination or consolidation of the outstanding Stock into a lesser number of Shares, a recapitalization, a spinoff, a reclassification or a similar occurrence, the Committee shall make appropriate adjustments in one or more of (i) the number of Shares available for future grants under Section 5a, (ii) the number of Shares covered by each outstanding Option or (iii) the Exercise Price under each outstanding Option.
- (b) Mergers and Consolidations. In the event that the Company is a party to a merger or consolidation, outstanding Options shall be subject to the agreement of merger or consolidation. Such agreement may provide for the assumption of outstanding Options by the surviving corporation or its parent or for their continuation by the Company (if the Company is the surviving corporation). In the event the Company is not the surviving corporation and the surviving corporation will not assume the outstanding Options, the agreement of merger or consolidation may provide for payment of a cash settlement for exercisable options equal to the difference between the amount to be paid for one Share under such agreement and the Exercise Price and for the cancellation of Options not exercised or settled, in either case without the Optionees' consent.
- (c) Reservation of Rights. Except as provided in this Section 9, an Optionee or Offeree shall have no rights by reason of (i) any subdivision or consolidation of shares of stock of any class, (ii) the payment of any dividend or (iii) any other increase or decrease in the number of shares of stock of any class. Any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or Exercise Price of Shares subject to an Option. The grant of an Option pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell or transfer all or any part of its business or assets.

#### SECTION 10. SECURITIES LAWS.

Shares shall not be issued under the Plan unless the issuance and delivery of such Shares comply with (or are exempt from) all applicable requirements of law, including (without limitation) the Securities Act of 1933, as amended, the Exchange Act, the rules and regulations promulgated thereunder, state securities laws and regulations, and the regulations of any stock exchanges on which the Company's securities may then be listed.

#### SECTION 11. NO EMPLOYMENT RIGHTS.

No provision of the Plan, nor any right or Option granted under the Plan, shall be construed to give any person any right to become, to be treated as, or to remain an Employee. The Company and its Subsidiaries reserve the right to terminate any person's Service at any time and for any reason.

# SECTION 12. DURATION AND AMENDMENTS.

- (a) Term of the Plan. The Plan, as set forth herein, shall become effective as of the date indicated herein. The Plan shall terminate automatically 10 years after its amendment and restatement by the Board of Directors to read as set forth herein and may be terminated on any earlier date pursuant to Subsection (b) below.
- (b) Right to amend or Terminate the Plan. The Board of Directors may at any time and for any reason, amend, suspend or terminate the Plan. An amendment of the Plan shall be subject to the approval of the Company's stockholders only to the extent required by applicable laws, regulations and rules, including the rules of any applicable exchange.
- (c) Effect of Amendment or Termination. No Shares shall be issued or sold under the Plan after the termination thereof, except upon (i) the exercise of an Option granted prior to such termination or (ii) the issuance of Shares pursuant to a Stock Purchase Agreement executed prior to such termination. The termination of the Plan, or any amendment thereof, shall not affect any Share previously issued or any Option previously granted under the Plan.

# SECTION 13. EXECUTION.

To record the amendment and restatement of the Plan by the Board of Directors, effective May 25, 2010, the Company has caused its authorized officer to execute the same.

VIC	AL INCORPORATED
By:	/s/ Vijay B. Samant

# CERTIFICATION

#### I, Vijay B. Samant, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Vical Incorporated;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material
    information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in
    which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 6, 2010

By: /s/ VIJAY B. SAMANT

Vijay B. Samant Chief Executive Officer

# CERTIFICATION

#### I, Jill M. Broadfoot, certify that:

- 1. I have reviewed this quarterly report on Form 10-Q of Vical Incorporated;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material
    information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in
    which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 6, 2010

By: /s/ JILL M. BROADFOOT

Jill M. Broadfoot Chief Financial Officer

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350, as adopted), Vijay B. Samant, the Chief Executive Officer of Vical Incorporated (the "Company"), hereby certifies that, to the best of his knowledge:

- 1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2010, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- 2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Periodic Report and results of operations of the Company for the period covered by the Periodic Report.

Dated: August 6, 2010

/s/ VIJAY B. SAMANT

Vijay B. Samant Chief Executive Officer

THIS CERTIFICATION "ACCOMPANIES" THE FORM 10-Q TO WHICH IT RELATES, IS NOT DEEMED FILED WITH THE SEC AND IS NOT TO BE INCORPORATED BY REFERENCE INTO ANY FILING OF THE COMPANY UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (WHETHER MADE BEFORE OR AFTER THE DATE OF THE FORM 10-Q), IRRESPECTIVE OF ANY GENERAL INCORPORATION LANGUAGE CONTAINED IN SUCH FILING. A SIGNED ORIGINAL OF THIS CERTIFICATION HAS BEEN PROVIDED TO THE COMPANY AND WILL BE RETAINED BY THE COMPANY AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.

# CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. § 1350, as adopted), Jill M. Broadfoot, the Chief Financial Officer of Vical Incorporated (the "Company"), hereby certifies that, to the best of her knowledge:

- 1. The Company's Quarterly Report on Form 10-Q for the period ended June 30, 2010, to which this Certification is attached as Exhibit 32.2 (the "Periodic Report"), fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- 2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Periodic Report and results of operations of the Company for the period covered by the Periodic Report.

Dated: August 6, 2010

/s/ JILL M. BROADFOOT

Jill M. Broadfoot Chief Financial Officer

THIS CERTIFICATION "ACCOMPANIES" THE FORM 10-Q TO WHICH IT RELATES, IS NOT DEEMED FILED WITH THE SEC AND IS NOT TO BE INCORPORATED BY REFERENCE INTO ANY FILING OF THE COMPANY UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR THE SECURITIES EXCHANGE ACT OF 1934, AS AMENDED (WHETHER MADE BEFORE OR AFTER THE DATE OF THE FORM 10-Q), IRRESPECTIVE OF ANY GENERAL INCORPORATION LANGUAGE CONTAINED IN SUCH FILING. A SIGNED ORIGINAL OF THIS CERTIFICATION HAS BEEN PROVIDED TO THE COMPANY AND WILL BE RETAINED BY THE COMPANY AND FURNISHED TO THE SECURITIES AND EXCHANGE COMMISSION OR ITS STAFF UPON REQUEST.