

UNITED STATES
 SECURITIES AND EXCHANGE COMMISSION
 WASHINGTON, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES
 EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 1996

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES
 EXCHANGE ACT OF 1934

Commission File Number: 0-21088

VICAL INCORPORATED

 (Exact name of registrant as specified in its charter)

Delaware 93-0948554

 (State or other jurisdiction of (I.R.S. Employer Identification No.)
 incorporation or organization)

9373 Towne Centre Dr., Suite 100, San Diego, California 92121

 (Address of principal executive offices) (Zip code)

(619) 453-9900

 (Registrant's telephone number, including area code)

Not Applicable

 (Former name, former address and former fiscal year,
 if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required
 to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during
 the preceding 12 months (or such shorter period that the registrant was required
 to file such reports), and (2) has been subject to such filing requirements for
 the past 90 days -- Yes No .

Indicate the number of shares outstanding of each of the issuer's classes of
 common stock, as of the latest practicable date.

<TABLE> <CAPTION>	
Class	Outstanding at June 30, 1996
-----	-----
<S>	<C>
Common Stock, \$.01 par value	15,384,924

VICAL INCORPORATED

FORM 10-Q

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PART I. FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

VICAL INCORPORATED
BALANCE SHEETS

<TABLE>
<CAPTION>

	June 30, 1996 (Unaudited)	December 31, 1995
	-----	-----
ASSETS		
<S>	<C>	<C>
Current Assets:		
Cash and cash equivalents	\$ 5,993,781	\$ 7,174,128
Marketable securities	44,020,191	45,353,638
Receivables and other	1,020,103	528,089
	-----	-----
Total current assets	51,034,075	53,055,855
	-----	-----
Property and Equipment:		
Equipment	3,408,056	3,218,315
Leasehold improvements	1,132,566	517,846
	-----	-----
	4,540,622	3,736,161
Less-Accumulated depreciation and amortization	(3,259,001)	(3,044,110)
	-----	-----
	1,281,621	692,051
	-----	-----
Patent Costs	979,441	835,410
Deposits and Other Assets	1,052,082	534,188
	-----	-----
	\$ 54,347,219	\$ 55,117,504
	=====	=====

LIABILITIES AND STOCKHOLDERS' EQUITY

Current Liabilities:

Accounts payable and accrued expenses	\$ 650,409	\$ 528,297
Current portion of capital lease obligations	281,228	307,485
Deferred revenue	739,493	679,167
	-----	-----
Total current liabilities	1,671,130	1,514,949
	-----	-----

Long-Term Obligations:

Notes Payable	641,320	--
Long-Term Obligations Under Capital Leases	327,795	338,514
	-----	-----
Total long-term obligations	969,115	338,514
	-----	-----

Stockholders' Equity:

 Common stock, \$.01 par value--40,000,000 shares authorized--

15,384,924 and 15,364,265 shares issued and outstanding at June 30, 1996 and December 31, 1995, respectively	153,849	153,643
Additional paid-in capital	72,859,955	72,728,484
Deferred compensation	(53,712)	(158,427)
Unrealized gain (loss) on marketable securities	(134,460)	104,176
Accumulated deficit	(21,118,658)	(19,563,835)
	-----	-----
Total stockholders' equity	51,706,974	53,264,041
	-----	-----
Total Liabilities and Stockholders' Equity	\$ 54,347,219	\$ 55,117,504
	=====	=====

</TABLE>

See accompanying notes.

VICAL INCORPORATED
STATEMENTS OF OPERATIONS
(UNAUDITED)

ended	Three months ended		Six months
	June 30,		June 30,
	-----	-----	-----
1995	1996	1995	1996
-----	-----	-----	-----
<S>	<C>	<C>	<C>
<C>			
Revenues:			
Contract revenue	\$ 226,228	\$ 225,000	\$ 509,428
\$ 452,979			
License/royalty revenue	3,329,300	3,262,804	3,566,587
4,011,391			
	-----	-----	-----
	3,555,528	3,487,804	4,076,015
4,464,370			
Expenses:			
Research and development	3,133,421	2,818,575	5,513,839
4,906,530			
General and administrative	738,719	1,030,254	1,469,021
1,712,995			
	-----	-----	-----
	3,872,140	3,848,829	6,982,860
6,619,525			
	-----	-----	-----
Loss from operations	(316,612)	(361,025)	(2,906,845)
(2,155,155)			
Interest income	680,036	334,589	1,379,052
631,318			
Interest expense	13,011	19,533	27,030
39,379			
	-----	-----	-----
Net income (loss)	\$ 350,413	\$ (45,969)	(1,554,823)
(1,563,216)			
	=====	=====	=====
Net earnings (loss) per share (Note 2)	\$.02	\$ (.00)	\$ (.10)
\$ (.12)			
	=====	=====	=====
Shares used in per share calculation (Note 2)	15,791,282	12,845,612	15,377,166
12,845,613			
	=====	=====	=====

</TABLE>

See accompanying notes.

VICAL INCORPORATED
STATEMENTS OF CASH FLOWS
(UNAUDITED)

<TABLE>
<CAPTION>

Six months ended

	June 30,	
	----- 1996 -----	----- 1995 -----
<S>	<C>	<C>
Cash flows provided from (used in) operating activities:		
Net loss	\$ (1,554,823)	\$ (1,563,216)
Adjustments to reconcile net loss to net cash provided from (used in) operating activities:		
Depreciation and amortization	241,830	290,849
Compensation expense related to stock purchases	103,800	131,339
Write-off of patent application costs	3,247	219,242
Change in operating assets and liabilities:		
Receivables and other	(492,014)	140,327
Accounts payable and accrued expenses	122,112	(67,229)
Deferred revenue	60,326	(762,500)
	-----	-----
Net cash provided from (used in) operating activities	(1,515,522)	(1,611,188)
	-----	-----
Cash flows provided from (used in) investing activities:		
Marketable securities	1,094,811	7,085,492
Capital expenditures	(682,071)	(23,645)
Deposits and other assets	(517,894)	346,358
Patent expenditures	(151,935)	(206,041)
	-----	-----
Net cash provided from (used in) investment activities	(257,089)	7,202,164
	-----	-----
Cash flow provided provided from (used in) financing activities:		
Principal payments under capital lease obligations	(181,649)	(196,725)
Proceeds from note payable	641,320	--
Issuance of common stock, net	132,593	(16)
	-----	-----
Net cash provided from (used in) financing activities	592,264	(196,741)
	-----	-----
Net increase (decrease) in cash and cash equivalents	(1,180,347)	5,394,235
Cash and cash equivalents at beginning of period	7,174,128	2,264,130
	-----	-----
Cash and cash equivalents at end of period	\$ 5,993,781	\$ 7,658,365
	=====	=====
Supplemental Disclosure of Non-cash Investing and Financing Activities:		
Equipment acquired under capital leases	\$ 144,673	\$ 109,364
	=====	=====

</TABLE>

See accompanying notes.

VICAL INCORPORATED

NOTES TO FINANCIAL STATEMENTS

June 30, 1996
(unaudited)

1. Organization and Basis of Presentation

Organization

Vical was incorporated in April 1987 and has devoted substantially all of its resources since that time to its research and development programs. The Company is currently focusing its resources on the development of its direct gene transfer and related technologies.

Basis of Presentation

The information contained herein has been prepared in accordance with instructions for Form 10-Q. The information at June 30, 1996, and for the three month and six month periods ended June 30, 1996 and 1995, is unaudited. In the opinion of management, the information reflects all adjustments necessary to make the results of operations for the interim periods a fair statement of such operations. All such adjustments are of a normal recurring nature. Interim results are not necessarily indicative of results for a full year. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and 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. For a presentation including all disclosures required by generally accepted accounting principles, these financial statements should be read in conjunction with the audited financial statements for the year ended December 31, 1995, included in the Vical Incorporated Form 10-K filed with the Securities and Exchange Commission.

In January 1996, the Company adopted Statement of Financial Accounting Standards ("SFAS") No. 123, "Accounting for Stock-Based Compensation." SFAS 123 requires that the Company either recognize compensation expense for grants of stock, stock options, and other equity instruments to employees based on new fair value accounting rules or at a minimum disclose pro forma net income and earnings per share under the new method without actually adopting the new fair value accounting rules. Additionally, detailed disclosures about plan terms, exercise prices, and the assumptions used in measuring the fair value of stock-based grants must be disclosed. The Company has elected to adopt the alternative disclosure requirement of SFAS 123 and therefore will not be recording stock based compensation using fair value accounting as defined under SFAS 123.

Patent Costs

The Company capitalizes certain costs related to patent applications. Accumulated costs are amortized over the estimated economic lives of the patents using the straight-line method, commencing at the time the patents are issued. Costs related to patent applications are written off to expense at the time such costs are deemed to have no continuing value.

2. Net Earnings (Loss) Per Share

Net earnings (loss) per share for the three and six month periods ended June 30, 1996 and 1995 is computed using the weighted average number of common shares and common equivalent shares, as applicable, outstanding during the period. Common share equivalents represent shares issuable upon assumed exercise of stock options, using the treasury stock method, which would have a dilutive effect in periods where there are earnings. Common share equivalents are not considered in the calculation of net loss per share, as their effect would be anti-dilutive. Earnings (loss) per share on a fully diluted basis are the same as primary earnings per share for all periods presented.

3. Notes Payable

In June 1996, the Company obtained a loan and security agreement with a bank for the borrowing of up to \$2,500,000. Borrowings currently bear interest at the bank's prime rate (8.25% at June 30, 1996) plus .5%, and the Company may alternatively choose to have its borrowings bear interest at the LIBOR rate plus 3.25%. Borrowings under the line of credit are secured by substantially all assets of the Company. In April 1997, any outstanding borrowings convert to a term loan amortized over three years. The term loan bears interest at the same rate options. In addition, the Company is required to comply with certain restrictive covenants. At June 30, 1996, borrowings under the line of credit totaled \$641,000.

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

OVERVIEW

Vical was incorporated in April 1987 and has devoted substantially all of its resources since that time to its research and development programs. The Company is focusing its resources on the development of its direct gene transfer and related technologies. To date, the Company has not received revenues from the sale of products. The Company expects to incur substantial operating losses for at least the next several years, due primarily to expansion of its research and development programs and the cost of preclinical studies and clinical trials. As of June 30, 1996, the Company's accumulated deficit was approximately \$21.1 million.

In September 1995, the Company commenced Phase II clinical trials of Allovectin-7 at ten teaching oncology centers in five tumor types: melanoma, colorectal carcinoma, renal cell carcinoma, breast carcinoma and non-Hodgkin's lymphoma. If appropriate rates and durations of clinical response are observed in these Phase II clinical trials, the data could potentially lead to the design and initiation of pivotal Phase II/III clinical trials to support product license approval submissions for certain indications. In addition, Allovectin-7 is being evaluated, either alone or in combination with an approved cancer therapeutic agent, in several other Phase I/II clinical trials. The trials are ongoing.

In April 1995, the Company initiated Phase I/II clinical testing of its second

gene therapy product candidate, Leuvectin, at two clinical centers. Leuvectin is a gene-based product candidate intended for direct injection into tumor lesions of cancer patients. Twenty-four patients with advanced solid malignancies or lymphoma were enrolled in a Phase I/II clinical trial which evaluated the safety and biological activity of the experimental gene therapy. This trial concluded in the second quarter of 1996, and results were presented in May 1996. Since no toxicity or other adverse events were observed, a follow-on trial is planned to evaluate safety and biological activity at higher dose levels. This follow-on trial is scheduled to begin in late 1996.

There can be no assurance that the Company's product candidates will prove to be safe and effective in clinical trials or that any commercially successful products will ultimately be developed by the Company.

This Form 10-Q contains in addition to historical information, forward-looking statements. Such statements are subject to certain risks and uncertainties, including whether the Company's product candidates will be shown to be safe or efficacious in clinical trials, whether the Company's corporate collaborations are successful, and whether the Company's product candidates will ultimately be successfully developed or receive necessary regulatory approvals, which could cause actual results to differ materially from those projected. These forward-looking statements speak only as of the date hereof. The Company undertakes no obligation to update these forward-looking statements to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

RESULTS OF OPERATIONS

For the quarter ended June 30, 1996, the Company had revenues of \$3,555,000. Revenue in the second quarter of 1996 included a milestone payment of \$1,000,000 as the result of Merck & Co., Inc.'s ("Merck") initiation of a Phase I clinical trial of an experimental DNA vaccine against influenza virus, one of the seven infectious disease targets covered under Merck's research, collaboration and license agreement with Vical covering potential DNA vaccines. Also included in the second quarter was revenue from the exercise of three of five original license options, the extension of the option to a fifth vaccine target, and the addition of an option to a sixth vaccine target by Pasteur Merieux Serums & Vaccins ("Pasteur Merieux") under the research, option and license agreement with the Company. Vical received \$2.6 million in return for these transactions. Revenue from Pasteur Merieux transactions totaling \$2,227,000 was recognized in the quarter. Other license, contract, and royalty revenue in the quarter amounted to \$328,000. The Company had revenues of \$3,488,000 for the quarter ended June 30, 1995. Of this amount, \$3,104,000 resulted from license and contract revenue from Merck. In April 1995 pursuant to an existing research and collaboration agreement between the Company and Merck, Merck exercised its remaining options to license the Vical technology for use with three vaccine targets: hepatitis B, herpes simplex virus, and tuberculosis. On April 27, 1995, the Company received approximately \$3 million in return for these license rights, all of which was recognized as license revenue in the second quarter of 1995. Other license, contract, and royalty revenue in the quarter amounted to \$384,000. Revenues in the first six months of 1996 totaled \$4,076,000 and consisted of \$1,000,000 from Merck, \$2,390,000 from Pasteur Merieux, and other license, royalty, and contract revenue totaling \$686,000. For the six months ended June 30, 1995, the Company had revenues of \$4,464,000. Revenues in the first six months of 1995 consisted of license revenue from Merck in the amount of \$3,312,000, other license and royalty revenue totaling \$699,000, as well as \$453,000 in contract revenue. Future payments from Merck, if any, will be milestone and royalty payments, due upon Merck's development and commercialization of products under the agreement. There can be no assurance that such development and commercialization will occur.

The Company's total operating expenses for the quarter ended June 30, 1996, were \$3,872,000 compared to \$3,849,000 for the second quarter of 1995. Operating expenses for the six months ended June 30, 1996, were \$6,983,000 as compared to \$6,620,000 for the same period in 1995.

Research and development expenses increased to \$3,133,000 for the three months ended June 30, 1996, as compared to \$2,819,000 for the same period in 1995. For the six months ended June 30, 1996, research and development expenses increased to \$5,514,000 from \$4,907,000 for the same period in 1995. These increases in research and development expenses resulted primarily from ongoing clinical trials and related internal staffing increases. During the second quarter, Vical paid an option fee to Corixa Corporation to enter into an option agreement that allows the Company to combine its gene transfer technology with a gene encoding Corixa's proprietary immunomodulatory protein, called LeIF. Further potential expenses under the agreement may include internal research and development costs, a license fee, milestone payments, and royalties on product sales. Additionally, costs of staffing and funding of research being conducted at universities working in collaboration with Vical contributed to the increase in research and development expenses.

General and administrative expenses decreased to \$739,000 for the three months ended June 30, 1996, from \$1,030,000 for the same period in 1995 and to \$1,469,000 for the six months ended June 30, 1996, from \$1,713,000 in 1995. The change was primarily due to approximately \$350,000 of previously capitalized

building costs being written off to expense in the quarter ended June 30, 1995

Interest income increased from approximately \$335,000 for the quarter ended June 30, 1995, to approximately \$680,000 for the second quarter of 1996 and from \$631,000 for the six months ended June 30, 1995 to \$1,379,000 for the six months ended June 30, 1996. These changes are primarily the result of higher cash and investment balances and average rates of return.

Net earnings per share for the three months ended June 30, 1996, were \$.02 per share as compared to a net loss per share of \$.00 for the second quarter of 1995. Net loss for the six months ended June 30, 1996, was \$.10 per share as compared to a net loss per share of \$.12 for the same period in 1995.

Vical expects to incur substantial operating losses over the next several years due to anticipated significant increases in research and development expenses. The increases are expected to result from expanding preclinical and clinical trials for the Company's proposed products, increased patent and regulatory costs and associated increases in personnel. Losses may fluctuate from quarter to quarter as a result of differences in the timing of expenses incurred and the revenues received from collaborative agreements. Such fluctuations may be significant.

LIQUIDITY AND CAPITAL RESOURCES

Since its inception, Vical has financed its operations primarily through private placements of preferred stock, three public offerings of common stock, and revenues from collaborative agreements. As of June 30, 1996, the Company had working capital of approximately \$49.4 million compared to \$51.5 million at December 31, 1995. Cash and marketable securities totaled approximately \$50.0 million at June 30, 1996, compared to \$52.5 million at December 31, 1995.

In June 1996, the Company obtained a loan and security agreement with a bank for the borrowing of up to \$2,500,000. Borrowings currently bear interest at the bank's prime rate (8.25% at June 30, 1996) plus .5%, and the Company may alternatively choose to have its borrowings bear interest at the LIBOR rate plus 3.25%. Borrowings under the line of credit are secured by substantially all assets of the Company. In April 1997, any outstanding borrowings convert to a term loan amortized over three years. The term loan bears interest at the same rate options. In addition, the Company is required to comply with certain restrictive covenants. At June 30, 1996, borrowings under the line of credit totaled \$641,000.

The Company expects to incur substantial additional research and development expense including continued increases in personnel costs and costs related to preclinical testing and clinical trials. The Company's future capital requirements will depend on many factors, including continued scientific progress in its 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 and enforcing patent claims, competing technological and market developments, the cost of manufacturing and scale-up, and commercialization activities and arrangements. The Company intends to seek additional funding through research and development relationships with suitable potential corporate collaborators or through public or private financing. There can be no assurance that additional funding will be available on favorable terms, if at all.

If additional funding is not available, Vical anticipates that its available cash and existing sources of funding will be adequate to satisfy its operating needs through 1998.

PART II. OTHER INFORMATION

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

On June 13, 1996, the Company held its Annual Meeting of Stockholders. The following actions were taken at the annual meeting.

1. The following two Class I directors were elected:

- a. Alain B. Schreiber, M.D. 13,659,126 shares voted in favor of the nominee, 90,620 withheld their vote;
- b. Philip M. Young. 13,661,926 shares voted in favor of the nominee, 87,820 withheld their vote;

The Company's Class II directors, Robert C. Bellas and Fred A. Middleton, will continue in office until 1997, and the Company's Class III directors, Patrick F. Latterell and Dale A. Smith, will continue in office until 1998.

2. The selection of the Company's independent auditors was ratified. 13,716,384 shares were voted in favor of the proposal, 14,594 were voted against the proposal, and 18,768 shares abstained.

ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

1. Exhibits

Exhibit 10.9 Research Collaboration and License Agreement dated
May 31, 1991, between the Company and Merck & Co.,
Inc. *

Exhibit 27 Financial Data Schedule

2. Reports on Form 8-K

None

* This agreement, which was filed as Exhibit 10.9 to the Company's Form 10-Q for the Quarterly Period Ended September 30, 1994, is being filed herewith to make publicly available certain portions of the agreement which were previously confidential, but which have subsequently been publicly disclosed.

VICAL INCORPORATED

SIGNATURES

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

Vical Incorporated

Date: August 13, 1996

By: /s/ Martha J. Demski

Martha J. Demski
Vice President and
Chief Financial Officer
(on behalf of the registrant and
as the registrant's Principal
Financial and Accounting
Officer)

EXHIBIT LIST

Exhibit 10.9 Research Collaboration and License Agreement dated
May 31, 1991, between the Company and Merck & Co.,
Inc. *

Exhibit 27 Financial Data Schedule

*This agreement, which was filed as Exhibit 10.9 to the Company's Form 10-Q for the Quarterly Period Ended September 30, 1994, is being filed herewith to make publicly available certain portions of the agreement which were previously confidential, but which have subsequently been publicly disclosed.

CONFIDENTIAL
TREATMENT
REQUESTED

EXHIBIT 10.9

RESEARCH COLLABORATION

AND

LICENSE AGREEMENT

THIS AGREEMENT is effective as of the 31st day of May, 1991 by and between Vical Incorporated, a corporation organized and existing under the laws of the State of Delaware, and having its principal offices at 9373 Towne Centre Drive, San Diego, California 92121 ("VICAL"), and Merck & Co., Inc., a corporation organized and existing under the laws of the State of New Jersey, and having its principal office at 126 East Lincoln Avenue, Rahway, New Jersey 07065 ("MERCK").

WHEREAS, VICAL possesses technology pertaining to the intramuscular delivery of vaccines for the prevention of human infectious disease that consist of DNA and/or RNA gene sequences derived from the genome of the infectious agent which would prevent clinical disease from an infection (the "Technology"); and

WHEREAS, MERCK wishes to collaborate with VICAL to develop an INFLUENZA VACCINE as defined herein and an AIDS VACCINE as defined herein utilizing the Technology and to obtain licenses under VICAL PATENT RIGHTS and VICAL KNOW-HOW.

NOW, THEREFORE, VICAL and MERCK agree as follows:

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ARTICLE 1 - DEFINITIONS

- 1.1 AIDS VACCINE means a vaccine which would prevent an infection by Human Immunodeficiency Virus (HIV-1) and/or clinical diseases caused by infection with HIV-1 in humans.
- 1.2 INFLUENZA VACCINE means a vaccine which would prevent an infection and/or significant clinical diseases caused by any influenza virus in humans.
- 1.3 LICENSED PRODUCT means a bulk or finished AIDS VACCINE or INFLUENZA VACCINE, or other vaccine for the prevention of human infectious disease if licensed hereunder, which utilizes the Technology or technology which is developed by VICAL during and as a result of the RESEARCH COLLABORATION PROGRAM; provided, however, that if any such vaccine is also capable of being used for treatment of the same human infectious disease, then such therapeutic use of such vaccine shall also be considered a LICENSED PRODUCT for purposes of the license being granted by VICAL to MERCK under this Agreement.
- 1.4 COMBINATION PRODUCT means LICENSED PRODUCT in combination with one or more antigenically active components other than an AIDS VACCINE or an INFLUENZA VACCINE or other vaccine for the prevention of human infectious disease if licensed hereunder.
- 1.5 VICAL PATENT RIGHTS means (i) all patents and patent applications which relate to the Technology which are owned by VICAL as sole or joint owner or under which VICAL has licensable

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rights and which exist as of the effective date of this Agreement and any other similar future United States or foreign patent or patent applications which VICAL owns as sole or joint owner during and as a result of the RESEARCH COLLABORATION PROGRAM or under which VICAL acquires licensable rights during the RESEARCH COLLABORATION PROGRAM; and (ii) any divisions, continuations, or continuations-in-part of the patents and patent applications set forth above, including any reissue, reexamination or extension of the patent, any extended or restored term, and any confirmation patent, registration patent, or patent of addition.

- 1.6 VICAL KNOW-HOW means any information and data relevant to LICENSED

PRODUCT not generally known including, but not limited to, procedures for experiments and tests and other protocols, results of experimentation and testing, fermentation and purification techniques and assay protocols, which are necessary or useful for MERCK in order to manufacture, use, develop, sell or seek approval to market LICENSED PRODUCT, in which VICAL has an ownership or licensable interest and which is presently in the possession of VICAL and/or which comes into the possession of VICAL during and as a result of the RESEARCH COLLABORATION PROGRAM.

1.7 MERCK KNOW-HOW means information and data not in MERCK's possession as of the effective date of this Agreement and developed solely under the RESEARCH COLLABORATION PROGRAM which in MERCK's reasonable discretion it determines are necessary and useful for VICAL in order to develop LICENSED PRODUCT.

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1.8 (a) NET SALES means the gross amount of sales of LICENSED PRODUCT invoiced to third parties less:

1. the actual cost to MERCK of the devices for dispensing or administering the LICENSED PRODUCT as well as diluents or similar material which accompany the LICENSED PRODUCT as it is sold;
2. trade and quantity discounts actually allowed;
3. returns, rebates and allowances;
4. retroactive price reductions;
5. with regard to sales in the United States, [*] of the amount invoiced to cover cash discounts, bad debt, sales or excise taxes, transportation and insurance charges; and with regard to sales outside the United States [*] to include the above and additional special packaging, duties, and other governmental charges.

(b) With respect to sales of COMBINATION PRODUCT, NET SALES shall be calculated on the basis of the sales price of the same dose of LICENSED PRODUCT being sold without other active ingredients if such exists, and if LICENSED PRODUCT is not sold without other active ingredients, NET SALES shall be calculated on the basis of the invoice price of the COMBINATION PRODUCT multiplied by a fraction, the numerator of which shall be the inventory cost of LICENSED PRODUCT in the COMBINATION PRODUCT and the denominator of which shall be the inventory cost (using the same method of accounting) of all of the active ingredients in the COMBINATION PRODUCT. Inventory cost shall be determined in

[*] CONFIDENTIAL TREATMENT REQUESTED

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accordance with MERCK's regular accounting methods. In no event shall the fraction be less than one over the number of active ingredients in the COMBINATION PRODUCT.

1.9 TERRITORY means all countries of the world.

1.10 AFFILIATE of VICAL or MERCK means any corporation or business entity which owns or controls VICAL or MERCK, or is under common control with VICAL or MERCK. The term "control" means possession, direct or indirect, of the power to direct or cause the direction of the management and policies, whether through the ownership of voting securities, by contract or otherwise.

1.11 RESEARCH COLLABORATION PROGRAM means the research related to the Technology to be conducted in accordance with this Agreement by VICAL and MERCK as set forth in Schedule B to develop LICENSED PRODUCT.

1.12 CONTRACT YEAR shall mean the one (1) year period beginning with the effective date of this Agreement and any subsequent one (1) year periods that this Agreement is in effect.

1.13 VALID PATENT RIGHTS shall mean issued and unexpired VICAL PATENT RIGHTS which have not been declared invalid by a court of competent jurisdiction from which no appeal can be or is taken.

2.1 Subject to MERCK's rights set forth in Article 8.2(b), the

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parties shall engage in a RESEARCH COLLABORATION PROGRAM for a three (3) year period beginning on the effective date of this Agreement in order to pursue the development of LICENSED PRODUCTS. The parties current understanding of the RESEARCH COLLABORATION PROGRAM is set forth in Schedule B attached hereto and made a part of this Agreement.

2.2 All activities of the parties involving the RESEARCH COLLABORATION PROGRAM shall be determined and approved by a majority of the members of a Review Committee, which shall consist of four (4) scientific representatives designated by MERCK and three (3) by VICAL. Each party shall make its initial designation of its representatives by notice to the other party within thirty (30) days after execution of this Agreement and shall cause its representatives to attend meetings of the Review Committee. The Review Committee shall meet no less frequently than once each calendar quarter.

2.3 No later than ninety (90) days prior to the expiration of each CONTRACT YEAR during the RESEARCH COLLABORATION PROGRAM, the parties shall meet to discuss in detail the progress of the RESEARCH COLLABORATION PROGRAM and agree upon its details, its short and long-term goals and prospective budget. In the event a significant development transpires during the twelve (12) month period which may affect the short- or long-term goals or budget of the RESEARCH COLLABORATION PROGRAM or methods of achieving said goals, the parties shall reconvene, reassess and, if mutually agreed, change such methods and goals and the RESEARCH COLLABORATION PROGRAM.

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2.4 Throughout the term of the RESEARCH COLLABORATION PROGRAM both parties shall share with each other know-how resulting from the RESEARCH COLLABORATION PROGRAM. MERCK and VICAL agree that such know-how shall be granted confidentiality by the receiving party and shall not be disclosed without the written prior consent of the supplying party, except as otherwise provided in this Agreement and to the extent that such information meets the exclusions set forth in Article 6.

2.5 Each party shall continue to own and retain proprietary rights to such know-how and patents licensed or transferred under this Agreement except as specifically provided herein. Inventions developed under the RESEARCH COLLABORATION PROGRAM shall be owned by the inventing party, which shall have the right to have patents filed to protect its rights. Joint inventions developed under the RESEARCH COLLABORATION PROGRAM shall be jointly owned, and the parties shall cooperate in the filing of patents relating to such joint inventions which MERCK shall prosecute and maintain and bear all expenses; provided, however, that VICAL shall be consulted by MERCK with respect to patent applications filed by MERCK with respect to joint inventions under this Article 2.5, and VICAL shall be given the opportunity to review all such patent applications prior to filing. [*] of all payments by MERCK under this Article 2.5 as to such joint inventions shall be creditable against royalties due VICAL under Article 8 of this Agreement; however, no royalty payment when due, regardless of the number of credits available to MERCK in accordance with the terms of this Agreement, shall be reduced by more than [*].

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2.6 Unless otherwise mutually agreed by MERCK and VICAL, responsibility for development of LICENSED PRODUCTS shall belong to MERCK. In this connection, MERCK shall use diligent efforts, consistent with those applied to other products of similar commercial value, to conduct a development program for each LICENSED PRODUCT to obtain regulatory approvals for such LICENSED PRODUCT as outlined in Article 13 below. Unless otherwise agreed, VICAL shall participate in such activities to the extent that MERCK deems such participation necessary in its sole discretion. Summary reports with respect to such development activities shall be made as outlined in Article 13 below.

ARTICLE 3 - LICENSE GRANT

3.1 VICAL grants to MERCK an exclusive license under VICAL KNOW-HOW and VICAL PATENT RIGHTS to develop, make, have made, use and sell LICENSED PRODUCTS in the TERRITORY with the right to grant sublicenses to AFFILIATES of MERCK and those persons or entities through whom MERCK, in the normal course of its business collaborates in the manufacture

and sale of its products; provided, however, that nothing in this Agreement shall prohibit VICAL from utilizing the VICAL KNOW-HOW and/or VICAL PATENT RIGHTS, exclusive of MERCK KNOW-HOW, to develop, make, have made, use and sell, either by itself or with one or more third parties, products for the treatment of human infectious diseases.

- 3.2 In accordance with the letter from MERCK to the Wisconsin Alumni Research Foundation ("WARF") dated May 29, 1991, a copy of which is attached hereto as Schedule D, the exclusive licenses

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granted under Article 3.1 hereof with respect to certain of the VICAL PATENT RIGHTS shall extend beyond and survive the termination of the License Agreement ("WARF License Agreement") dated and effective as of January 1, 1991 between VICAL and WARF in the event such termination occurs prior to the termination of this Agreement.

- 3.3 During the term of the RESEARCH COLLABORATION PROGRAM, all VICAL activities relating to the Technology and the development of a LICENSED PRODUCT for prevention of human infectious disease shall be conducted by VICAL exclusively for MERCK under the terms of this Agreement.

- 3.4 VICAL agrees that so long as the RESEARCH COLLABORATION PROGRAM continues in effect, at least thirty (30) days prior to entering into substantive business discussions with a third party with respect to a collaboration agreement in the field of vaccines for the prevention of auto-immune disease VICAL will provide MERCK representatives of the Review Committee, with a copy to the Executive Director, Corporate Licensing, with a one-time notice in writing of these proposed activities.

ARTICLE 4 - PATENT PROTECTION AND VALIDITY

- 4.1 VICAL represents and warrants to MERCK that as of the effective date of this Agreement it (i) has the right to grant the licenses granted under Article 3.1 hereof and to provide the VICAL KNOW-HOW to MERCK pursuant to this Agreement, (ii) to the extent lawfully allowed by the Wisconsin Alumni Research Foundation will maintain in

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full force and effect the WARF License Agreement for so long as this Agreement remains in force, and (iii) will take no action with respect to the WARF LICENSE AGREEMENT which would conflict with MERCK's rights under this Agreement. MERCK may elect to terminate this Agreement in the event VICAL is determined by WARF to be in breach of the WARF LICENSE AGREEMENT. MERCK acknowledges that (i) VICAL has entered into the WARF License Agreement, (ii) MERCK has reviewed such Agreement, in the form which is attached as Schedule C, (iii) that any sublicense from VICAL to MERCK with respect thereto shall be subject, to the extent set forth in Schedule D, to the terms of the WARF License Agreement, including, without limitation, Section 2C of such Agreement with respect to sublicenses which extend beyond its termination.

- 4.2 MERCK represents and warrants that it has the full right to enter into this Agreement and that it neither has made nor will make any commitments to others in conflict with or in derogation of this Agreement.

- 4.3 Nothing in this Agreement shall be construed as a warranty or representation by VICAL as to the validity or scope of any VICAL PATENT RIGHTS. Nothing in this Agreement shall be construed as a warranty or representation that any LICENSED PRODUCT made, used or sold, or otherwise disposed of under any license granted by this Agreement, or any use of the VICAL KNOW-HOW, is or will be free from infringement of patents of third

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parties. VICAL makes no warranty or representation as to the viability, safety or efficacy of any LICENSED PRODUCT. THE WARRANTIES EXPRESSLY SET FORTH HEREIN ARE EXCLUSIVE AND NO OTHER WARRANTY, WRITTEN OR ORAL, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, IS EXPRESSED OR IMPLIED.

- 4.4 To the extent it may lawfully do so, and except to the extent MERCK has agreed to do so with respect to joint inventions as set forth in Article 2.5 above VICAL agrees to file, prosecute and maintain in such jurisdictions as it reasonably deems commercially appropriate after consultation with MERCK the VICAL PATENT RIGHTS owned in whole or in part by VICAL and licensed to MERCK under this Agreement, including

prosecution of an interference. VICAL shall give notice to MERCK of any decision to cease prosecution and maintenance of such VICAL PATENT RIGHTS and, in such case, shall permit MERCK at its sole discretion to continue prosecution or maintenance at its own expense. If MERCK elects to continue prosecution or maintenance, VICAL shall execute such documents and perform such acts at VICAL's expense as may be reasonably necessary for MERCK to continue prosecution or maintenance. [*] of all expenses and costs incurred by MERCK to continue prosecution and subsequent maintenance of VICAL PATENT RIGHTS shall be fully creditable against royalties due under Article 8 of this Agreement; however, no royalty payment when due, regardless of the number of such credits available to MERCK in accordance with the

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terms of this Agreement, shall be reduced by more than [*].

4.5 VICAL shall protect, where it reasonably determines that it is commercially advisable to do so after consultation with MERCK the VICAL PATENT RIGHTS licensed to MERCK under this Agreement against any third party who infringes the VICAL PATENT RIGHTS by development, manufacture, use or sale of LICENSED PRODUCT for which MERCK retains a license under this Agreement.

4.6 In the event VICAL institutes an action at its expense against third party infringers with respect to LICENSED PRODUCT or takes appropriate action to defend the VICAL PATENT RIGHTS, MERCK hereby agrees to cooperate fully with VICAL and any recovery obtained by VICAL as a result of such proceeding or other actions, whether obtained by settlement or otherwise, shall be retained by VICAL, except that VICAL shall pay to MERCK any reasonable expenses incurred in assisting in such action (excluding counsel fees) and any amount of the recovery attributable to lost profit on lost sales by MERCK after deduction of the royalty due VICAL on such sales under Article 8.

4.7 If within sixty (60) days of becoming aware of the infringement of the VICAL PATENT RIGHTS for which MERCK retains a license under this Agreement or unauthorized use of the VICAL KNOW-HOW with respect to such a LICENSED PRODUCT, VICAL decides not to institute an

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infringement suit or take other reasonable action to protect the VICAL PATENT RIGHTS and VICAL KNOW-HOW, MERCK shall have the right to institute such suit or take other appropriate action at its own expense in the name of VICAL or MERCK or both. In such event, VICAL shall cooperate fully with MERCK in its efforts to protect the VICAL PATENT RIGHTS and the VICAL KNOW-HOW. Any recovery obtained by MERCK as a result of such proceeding, by settlement or otherwise, shall be the property of MERCK, provided, however, that MERCK shall pay to VICAL any reasonable expenses incurred by VICAL in assisting with such action (other than counsel fees) and the applicable royalty VICAL would have received on sales lost by MERCK to the extent that the recovery includes sales lost by MERCK.

4.8 VICAL and MERCK each shall immediately give notice to the other of any certification of which they become aware filed under the U.S. "Drug Price Competition and Patent Term Restoration Act of 1984" claiming that a patent covering LICENSED PRODUCT is invalid or that infringement will not arise from the manufacture, use or sale of LICENSED PRODUCT by a third party. If VICAL or MERCK (depending on which party is defending the patent) decides not to bring infringement proceedings against the entity making such a certification, such party shall give notice to the other party of its decision not to bring suit within twenty-one (21) days after receipt of notice of such certification. The party receiving such notice may then, but is not required to, bring suit

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against the party that filed the certification. Any suit by MERCK or VICAL shall either be in the name of MERCK or in the name of VICAL, or jointly by MERCK and VICAL, as may be required by law. For this purpose, the party not bringing suit shall execute such legal papers necessary for the prosecution of such suit as may be reasonably requested by the party bringing suit.

- 4.9 VICAL shall promptly give notice to MERCK of the grant, lapse, revocation, surrender, invalidation or abandonment of any VICAL PATENT RIGHTS licensed to MERCK for which VICAL is responsible for the application, prosecution and maintenance.
- 4.10 The parties hereto shall cooperate with each other in gaining patent term extension where applicable to VICAL PATENT RIGHTS.
- 4.11 In any country where a compulsory license must be granted involving VICAL PATENT RIGHTS, the exclusive rights and license granted to MERCK shall not prohibit or prevent the granting of a compulsory license under the VICAL PATENT RIGHTS and any royalty payable by MERCK shall not be greater than the royalty payable by the compulsory licensee. VICAL shall consult with MERCK with respect to any circumstances in which it may be required to grant a compulsory license.

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ARTICLE 5 - TRANSFER OF INFORMATION

- 5.1 Each party shall disclose upon request by the other party all VICAL or MERCK KNOW-HOW, as applicable, not already disclosed. During the term of the RESEARCH COLLABORATION PROGRAM, VICAL shall also disclose to MERCK on an ongoing basis all VICAL KNOW-HOW developed in connection with the RESEARCH COLLABORATION PROGRAM.
- 5.2 VICAL shall have the option to acquire a nonexclusive, worldwide license to any technology developed solely by MERCK under the RESEARCH COLLABORATION PROGRAM and MERCK's interest in any technology developed jointly with VICAL under the RESEARCH COLLABORATION PROGRAM (hereinafter referred to as "MERCK Licensed Technology") which would be necessary for VICAL to develop vaccines which MERCK has not elected to develop or for which it has not pursued development as required under the terms of this Agreement.
- 5.3 Under the option granted in Article 5.2, VICAL shall have the right to grant sublicenses to subsidiaries without consent and to third parties approved in advance by MERCK (which approval shall not be unreasonably withheld) only in the event that VICAL elects not to develop and/or market the MERCK Licensed Technology. The right to grant sublicenses to subsidiaries without consent and approved third parties shall not include the right of such subsidiaries or approved third parties to

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grant further sublicenses except as MERCK may otherwise agree in its sole discretion.

- 5.4 In the event VICAL elects to exercise the option granted in Article 5.2, the parties shall negotiate in good faith a License Agreement which shall provide for the payment of royalties reasonable under the circumstances by VICAL to MERCK on net sales by VICAL, its Affiliates or sublicensee of such vaccine products utilizing the MERCK Licensed Technology and which shall provide for such other provisions customarily included in such an Agreement.

ARTICLE 6 - CONFIDENTIALITY

- 6.1 Except as otherwise provided in this Agreement, all VICAL or MERCK KNOW-HOW or other confidential information which is received by a party during the term of this Agreement shall be maintained in confidence by the recipient and shall not be disclosed to any other person, firm, or agency, governmental or private, without the prior written consent of the other party, except to the extent that such materials or information:
- 6.1.1 is known by recipient at the time of its receipt as documented in written records, or
- 6.1.2 is properly in the public domain, or
- 6.1.3 is subsequently disclosed to a party by a third party not under an obligation of confidentiality to the disclosing party, or
- 6.1.4 is developed independently of VICAL or MERCK KNOW-HOW, as the case may be, or information received by recipient as documented in written records, or

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- 6.1.5 is required to be disclosed to governmental agencies in order to gain approval to sell LICENSED PRODUCT (but only to the extent that such disclosure is required), or
- 6.1.6 is necessary to be disclosed to sublicensees, agents, consultants, AFFILIATES and/or other third parties for the research and development and/or sale and marketing of LICENSED PRODUCT under this Agreement, which entities first agree to be bound by the confidentiality obligations contained in this Agreement. It is understood that each party may disclose confidential information with the prior consent and approval of the other party.

ARTICLE 7 - ADVERSE EXPERIENCE REPORTING

- 7.1 The parties agree throughout the duration of this Agreement to notify each other immediately of any information concerning any serious or unexpected side effect, injury, toxicity or sensitivity reaction, or any unexpected incidence, and the severity thereof, associated with the clinical uses, studies, investigations, tests and marketing of the LICENSED

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PRODUCT. "Serious", as used in this paragraph, refers to an experience which results in death, permanent or substantial disability, in-patient hospitalization, prolongation of hospitalization; or is a congenital anomaly, cancer, the result of an overdose, or life threatening. "Unexpected", as used in this paragraph for a non-marketed LICENSED PRODUCT, is one that is not identified in nature, severity, or frequency in the current clinical investigator's confidential information brochure. "Unexpected", as used in this paragraph for a marketed product, is one that is not listed in the current labeling for the LICENSED PRODUCT and includes an event that may be symptomatically and pathophysiologically related to an event listed in the labeling but differs from the event because of increased frequency or greater severity or specificity.

ARTICLE 8 - PAYMENTS AND OTHER CONSIDERATIONS

- 8.1 MERCK shall make a nonrefundable payment in consideration of VICAL's research of [*] upon execution of this Agreement.
- 8.2 (a) In support of mutually agreed upon research to be conducted by VICAL for the first CONTRACT YEAR of the RESEARCH COLLABORATION PROGRAM, (which is described in Schedule B attached hereto) MERCK shall pay VICAL [*] payable upon the execution date

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of this Agreement. It is understood that this amount will support five and one-half (5.5) research scientists.

- (b) In the event MERCK has not terminated the Agreement at the end of the first CONTRACT YEAR as provided in Article 12.3 MERCK shall fund the PROGRAM for the second and, if the Agreement continues to remain in effect, the third CONTRACT YEAR, at no less than four hundred ninety-five thousand dollars (\$495,000) for each such year or such other greater dollar amount as the Review Committee unanimously and reasonably determines shall be necessary to fund VICAL's activities contemplated for such additional CONTRACT YEAR based upon the RESEARCH COLLABORATION PROGRAM set forth in the attached Schedule B. It is understood that this amount will support a minimum of two and three quarter (2.75) research scientists.
- (c) MERCK's rights and obligations under Article 3.1 of this Agreement shall terminate in the event MERCK elects not to fund the PROGRAM for the second and third CONTRACT YEAR as set forth herein unless MERCK pays VICAL, to reflect VICAL's continuing research the nonrefundable sum of five hundred thousand dollars (\$500,000) for AIDS VACCINE and/or five hundred thousand dollars (\$500,000) for INFLUENZA VACCINE (an aggregate of one million dollars (\$1,000,000.) for both) within thirty (30) days prior to the end of the second CONTRACT

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YEAR. Prior to such time, and afterwards in the event such payments are

made, MERCK's obligations with respect to AIDS VACCINE and INFLUENZA VACCINE shall continue as set forth under the terms and conditions of this Agreement.

- 8.3 (a) As further consideration and in recognition of the research to be performed by VICAL under this Agreement and subject to the provisions of Article 12, MERCK shall make the nonrefundable research milestone payments provided for in Schedule A for each of the first five (5) vaccines for the prevention of human infectious disease selected by MERCK in accordance with the terms of this Agreement including AIDS VACCINE and INFLUENZA VACCINE. Such payments shall be made within thirty (30) days of the achievement of the milestone.
- (b) As an additional research milestone payment, in the event that a United States Patent covering LICENSED PRODUCT issues to VICAL while this Agreement is in effect and prior to LICENSED PRODUCT entering Phase III clinical studies, then MERCK shall pay to VICAL, on a one time basis, the nonrefundable sum of [*] at the end of the first CONTRACT YEAR or upon completion of VICAL's duties under Proof of Principle experimental studies as described in Schedule B attached hereto whichever occurs later or as soon thereafter as said patent issues and the nonrefundable sum of [*]

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[*] on initiation of Phase III clinical studies. If such patent issues after initiation of Phase III clinical studies and while this Agreement remains in effect, then MERCK shall pay to VICAL, on a one time basis, the nonrefundable sum of [*] at the time such patent issues.

- (c) MERCK shall have the right to an option to extend the rights granted in Article 3.1 hereof through the second CONTRACT YEAR to vaccines used for prevention of all other human infectious diseases, to a RAS oncogene vaccine derived from the Kirsten -, Harvey -, or N-RAS oncogene for the prevention of ras oncogene associated tumors, and to a human papilloma virus vaccine derived from the genome of the human papilloma virus for the prevention of papilloma associated tumors and lesions other than LICENSED PRODUCT and shall have such right to do so (i) in the first CONTRACT YEAR at no additional cost and (ii) in the second CONTRACT YEAR by paying VICAL the sum of one million dollars (\$1,000,000) at the end of the first CONTRACT YEAR or at the successful completion of VICAL's Proof of Principle experimental studies (as described in Schedule B attached), whichever is later. Thereafter, following only the second and third CONTRACT YEARS, respectively, MERCK shall again have the right to an option to extend the rights granted in Article 3.1 hereof on a year-by-year and vaccine-by-vaccine basis by paying to VICAL the amount of \$250,000 per

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[*]; provided, however, that MERCK shall use its good faith efforts to begin or continue, as the case may be, conduct of a development program as outlined in this Agreement with respect to any vaccines for which it has made the above described payments, if so required. If MERCK determines to so extend the rights as described above, payments for such extension shall be made no later than thirty (30) days preceding the end of the second or third CONTRACT YEAR, as the case may be. MERCK shall lose all right to any vaccine for which it does not make the above described payments, if so required, or to any vaccines for which MERCK already has the rights but the development of which it has not been pursued as required by the terms of this Agreement; provided, however, during the term of this Agreement that at least thirty (30) days prior to entering into substantive business discussions with a third party with respect to a collaborative agreement regarding a vaccine for which MERCK has not made the above described payments, if so required, or pursued development as required, VICAL will provide MERCK representatives of the Review Committee with a one-time notice in writing of these proposed activities. A copy of such notice shall also be provided to the Executive Director, Corporate Licensing.

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- (d) If MERCK determines to exercise the options for which it has paid VICAL the sums as required in Article 8.3(c) above it shall do so on or before the end of the second, third or fourth CONTRACT YEARS, as the case may be. In such event MERCK shall pay VICAL, a license fee of [*] of the payment made under Article 8.3(c) (ii) shall be creditable against the license fee paid hereunder.
- (e) The terms and conditions of this Agreement will be applicable to licenses of additional infectious disease vaccines provided that the only consideration under such agreements shall be the royalties and milestones provided herein.

8.4 In consideration of the license granted in Article 3, royalties shall be payable to VICAL in each calendar year in the amount of [*] of NET SALES by MERCK, its AFFILIATES or permitted sublicensees of each LICENSED PRODUCT which is covered by VALID PATENT RIGHTS.

8.5 In the event a LICENSED PRODUCT sold in a country is not covered by VALID PATENT RIGHTS (including countries where patents have been applied for but have not yet issued), then MERCK shall pay know-how royalties of [*] on NET SALES of such LICENSED PRODUCT in such country for

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a period of [*] from the date of first commercial sale of LICENSED PRODUCT in such country. The royalties payable under this section shall be in lieu of patent royalties and not additive where patents later issue in a country.

8.6 Sales between MERCK and its sublicensees or AFFILIATES, or among such AFFILIATES and sublicensees, shall not be subject to royalty, but in such cases royalty shall be calculated upon MERCK's or its sublicensee's or AFFILIATES's NET SALES to an independent third party.

8.7 The obligation to pay royalties is imposed only once with respect to the same unit of LICENSED PRODUCT.

8.8 If MERCK is required to pay cumulative royalties in excess of [*] of Net Sales for additional licenses required to commercialize a particular LICENSED PRODUCT, the royalties payable to VICAL herewith with respect to such LICENSED PRODUCT shall be reduced by [*] of the additional royalties beyond such [*] figure; provided however that in no event shall the royalties due VICAL hereunder, after taking into account the above reduction be reduced below [*].

8.9 In the event that VICAL seeks to obtain additional licenses from third parties which may enhance or improve one or more LICENSED PRODUCTS, VICAL shall

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discuss with MERCK its interest in such additional licenses and on what terms such licenses may be obtained by VICAL or MERCK.

ARTICLE 9 - ACCOUNTING AND REPORTS

9.1 MERCK shall deliver to VICAL within sixty (60) days after the end of each calendar quarter a written account, including quantities and monetary amounts of MERCK's and MERCK's AFFILIATE's and sublicensee's sales subject to royalty payments and the amount of the royalty payment due to VICAL for such quarter. In the case of sales outside the United States, "calendar quarter" shall mean the respective periods of three (3) consecutive calendar months ending on February 28, May 31, August 31, and November 30. With respect to these "calendar quarters",

royalties shall be calculated for such periods but accounted for and paid within sixty (60) days after the end of each regular calendar quarter as set forth above. Any such payments by MERCK that are not paid on or before the date such payments are due under this Agreement shall bear interest to the extent permitted by applicable law at the reference rate of interest as reported by Bank of America NT & SA in San Francisco, California from time to time, calculated on the number of days such payment is delinquent.

9.2 When MERCK delivers the accounting to VICAL, MERCK shall also deliver all royalty payments due to VICAL for the calendar quarter.

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9.3 MERCK shall keep accurate records in sufficient detail to enable the amounts due to VICAL to be determined. Upon VICAL's request, MERCK shall permit an independent, certified public accountant selected by VICAL, except one to whom MERCK has reasonable objection, to have access during ordinary business hours to MERCK's records necessary to determine the correctness of any report or payment made in respect to any calendar quarter and obtain information as to the amount payable to VICAL for any such period in case of MERCK's failure to report or make payment. Such examination shall be at VICAL's expense and shall not take place more than once each year. These rights with respect to any year shall terminate two (2) years after the end of any such year; provided, however, that if such examination discloses that the royalties payable for the examination period are more than one hundred five percent (105%) of the royalties actually paid for such period, MERCK shall pay the expenses of the accountant. Information supplied to VICAL by such independent, certified public accountants shall not include any proprietary information not required to be disclosed under other sections of this Agreement.

9.4 All payments to be made by MERCK to VICAL under this Agreement shall be made in United States dollars by bank wire transfer in immediately available funds. In the case of sales outside the United States, the rate of exchange to be used in computing the amount of currency equivalent in United States dollars due VICAL

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shall be made at the rate of exchange, utilized by MERCK in its worldwide accounting system, prevailing on the fourth-to-the last business day of the calendar quarter.

ARTICLE 10 - MANUFACTURE

10.1 In the event that MERCK decides to develop any LICENSED PRODUCT under the terms of this Agreement and subject to the terms and conditions of a customary manufacturing and supply agreement, MERCK shall discuss with and, in its sole discretion, may grant to VICAL the right to manufacture a part of MERCK's requirements of LICENSED PRODUCT.

ARTICLE 11 - DURATION

11.1 This Agreement becomes effective as of the day and year first above written and may be terminated as set forth in Article 12 hereof and otherwise remains in effect until MERCK is no longer obligated to make payments to VICAL pursuant to this Agreement. At such time, the rights and licenses granted to MERCK under this Agreement shall be fully paid up and shall continue in full force and effect.

ARTICLE 12 - TERMINATION

12.1 Upon any material breach by either party under this Agreement, in addition to any other remedy it may

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have, the other party may terminate this Agreement by ninety (90) days written notice to the breaching party, specifying the material breach, default or other defect. The termination becomes effective at the end of the ninety (90) day period unless the breaching party cures the breach during the ninety (90) day period.

12.2 Either party may terminate this Agreement without notice if the other party becomes insolvent, makes an assignment for the benefit of creditors, is the subject of proceedings in voluntary or involuntary

bankruptcy instituted on behalf of or against such party, or has a receiver or trustee appointed for substantially all of its property; provided that in the case of an involuntary bankruptcy proceeding such right to terminate shall only become effective if the party consents thereto or such proceeding is not dismissed within ninety (90) days after the filing thereof.

- 12.3 Notwithstanding any other provisions of this Agreement to the contrary, this Agreement may be terminated by MERCK at the end of the first CONTRACT YEAR or thereafter upon ninety (90) days prior written notice given to VICAL. In the event of such termination, no further sums shall be payable by MERCK under this Agreement and the licenses and rights granted to MERCK shall be terminated except as set forth in Article 8.2(c) respecting rights and obligations MERCK has

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elected to continue for AIDS VACCINE and human INFLUENZA VACCINE. Upon such termination, MERCK shall (i) return to VICAL any and all VICAL KNOW-HOW or other VICAL technology related to VICAL PATENT RIGHTS provided that MERCK may retain, in its Legal files, a copy of such written KNOW-HOW or technology for record purposes and (ii) disclose to VICAL and license to VICAL in accordance with Article 5.2 any previously undisclosed MERCK KNOW-HOW or other technology developed by MERCK under the RESEARCH COLLABORATION PROGRAM.

- 12.4 Any expiration or early termination of this Agreement shall be without prejudice to the rights of either party against the other accrued or accruing under this Agreement prior to termination, including the obligation to pay royalties for LICENSED PRODUCT sold prior to such termination.
- 12.5 Upon termination of this Agreement, all provisions regarding confidentiality shall continue in full force and effect until seven (7) years after termination. Additionally, upon such termination, each party shall continue to be a joint owner of any joint inventions developed under the RESEARCH COLLABORATION PROGRAM.

ARTICLE 13 - EFFORTS

- 13.1 MERCK shall use diligent efforts, consistent with those applied to other products of similar commercial value, to design and complete all (except as otherwise provided) toxicological, pharmacological and clinical

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investigations, to the extent reasonably deemed necessary by MERCK, to obtain and maintain government approvals to import, register and market any LICENSED PRODUCT in each country in the Territory, in which MERCK determines that it is commercially reasonable to enter and to market such LICENSED PRODUCTS in such countries. All such regulatory applications for approval to market any LICENSED PRODUCTS in the Territory shall be filed in the name of and owned by MERCK. MERCK shall notify VICAL each time it submits an application for government registration and marketing approval for any LICENSED PRODUCT, shall notify VICAL of any action taken on any application, and shall promptly advise VICAL when any government approval to market any LICENSED PRODUCT has been obtained in the Territory.

- 13.2 MERCK shall furnish VICAL with semiannual, summary progress reports with respect to MERCK's efforts under Articles 2.6 and 13.1 above as to each LICENSED PRODUCT until the date of first commercial sale of such PRODUCT. Prior to such first commercial sale and so long as this Agreement remains in effect, if VICAL, in order for VICAL to develop vaccines which MERCK has elected not to develop under this Agreement, requests access to information, data or technology in MERCK's possession, relating exclusively to the LICENSED PRODUCTS, MERCK may consider such request, and in its sole discretion, determine if and on what terms access to such information, data or technology may be

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obtained by VICAL

ARTICLE 14 - GOVERNING LAW

- 14.1 This Agreement shall be construed and the respective rights of the parties hereto determined according to the substantive laws of the

State of New Jersey notwithstanding the provisions governing conflict of laws under such law to the contrary.

ARTICLE 15 - ASSIGNMENT

15.1 Neither party may assign this Agreement in whole or in part without the consent of the other, except that no such consent shall be required (i) in the case of MERCK if such assignment occurs in connection with the sale of all or substantially all of the business and assets of MERCK related to vaccines, or if MERCK assigns this Agreement to an AFFILIATE and (ii) in the case of VICAL, if such assignment occurs in connection with the acquisition, merger, or sale of all or substantially all of the assets of VICAL related to the Technology or a change in control of VICAL. Assignment of this Agreement shall not release the assigning party of its performance obligations under this agreement without the consent of the other party which consent shall not be unreasonably withheld.

ARTICLE 16 - SEVERANCE

16.1 If any provision of this Agreement is held to be invalid or unenforceable under the laws of either

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jurisdiction of the parties, all other provisions shall nevertheless continue in full force and effect, unless there is a material change in the benefits and/or rights received under this Agreement.

ARTICLE 17 - AMENDMENT

17.1 This Agreement constitutes the entire agreement between the parties and supersedes all previous arrangements whether written or oral. Any amendment or modification to this Agreement shall be made in writing signed by both parties.

ARTICLE 18 - NOTICE

18.1 Notices to VICAL shall be addressed to:

Vical Incorporated
9373 Towne Centre Drive
San Diego, California 92121
Attention: President

Copy to:

Thomas E. Sparks, Jr.
Pillsbury, Madison & Sutro
235 Montgomery St.
San Francisco, CA 94104

Notices to MERCK shall be addressed to:

Merck & Co., Inc.
P.O. Box 2000
Rahway, New Jersey 07065

Attention: Office of the Secretary

Either party may change its address by giving notice to the other party in the manner herein provided. Any notice required or provided for by the terms of this Agreement shall be in writing and sent by registered or certified

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mail, return receipt requested, postage prepaid or by express courier services providing evidence of delivery and properly addressed in accordance with the paragraph above. The effective date of notice shall be the actual date of receipt by VICAL or MERCK.

ARTICLE 19 - FORCE MAJEURE

19.1 No failure or omission by the parties hereto in the performance of any obligation of this Agreement shall be deemed a breach of this Agreement or create any liability if the same shall arise from any cause or causes beyond the control of the parties, including, but not limited

to, the following: act of God; acts or omissions of any government; any rules, regulations or orders issued by any governmental authority or by any officer department, agency or instrumentality thereof; fire; storm; flood; earthquake; accident; war; rebellion; insurrection; riot; invasion; strikes; and lockouts and provided that such failure or omission resulting from one of the above causes is cured as soon as is practicable after the occurrence of one or more of the above-mentioned causes.

ARTICLE 20 - PUBLIC ANNOUNCEMENTS/MISCELLANEOUS

- 20.1 Any public announcements or similar publicity with respect to this Agreement or the transactions contemplated herein shall be at such time and in such manner as VICAL and MERCK shall agree, provided that nothing herein shall prevent either party upon notice to the other from making such

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public announcements as such party's legal obligations require. VICAL may disclose this Agreement or the transactions contemplated thereby to investors or potential investors in VICAL or to financial institutions for the purpose of obtaining financing in the event that such disclosure is reasonably required to obtain an investment or financing and MERCK will have the opportunity to review such disclosure in advance.

- 20.2 During the term of this Agreement, each party shall be free to submit scientific manuscripts for publication regarding the work of the RESEARCH COLLABORATION PROGRAM, provided that the party wishing to publish shall submit to the other party all underlying data and the final draft of all such publications, whether they are to be presented orally or in written form, at least thirty (30) days prior to presentation or submission for publication. As may be applicable, the reviewing party shall advise the publishing party as to the patentability of any inventions to be disclosed and both parties shall work together to protect any and all proprietary rights.

ARTICLE 21 - INDEMNIFICATION

- 21.1 Each party shall indemnify and hold the other party harmless, and hereby forever releases and discharges the other party, from and against all claims, demands, liabilities, damages and expenses (including attorneys' fees) arising out of negligence of the indemnifying party, its AFFILIATES or permitted sublicensees in connection with

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the work performed during the RESEARCH COLLABORATION PROGRAM.

- 21.2 MERCK agrees to indemnify and hold VICAL, its employees and agents harmless from and against any claims, demands, liabilities, damages and expenses (including attorneys' fees) arising out of MERCK's development, testing, use, manufacture, marketing or other activities contemplated under this Agreement with respect to LICENSED PRODUCTS.

- 21.3 A party (the "Indemnitee") that intends to claim indemnification under this Article 21 shall promptly notify the other party (the "Indemnitor") in writing of any loss, claim, damage, liability or action in respect of which the Indemnitee or any of its AFFILIATES intend to claim such indemnification, and the Indemnitor shall have the right to participate in, and, to the extent the Indemnitor so desires, jointly with any other Indemnitor similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an Indemnitee shall have the right to retain its own counsel, with the fees and expenses to be paid by the Indemnitee, if representation of such Indemnitee by the counsel retained by the Indemnitor would be inappropriate due to actual or potential differing interests between such Indemnitee and any other party represented by such counsel in such proceedings. The indemnity agreement in this Article 21 shall not apply to amounts paid in settlement of any loss, claim, damage, liability or action if such settlement is effected without the consent of the

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Indemnitor, which consent shall not be withheld unreasonably. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any such action, if prejudicial to its

ability to defend such action, shall relieve such Indemnitor of any liability to the Indemnitees under this Article 21, but the omission so to deliver written notice to the Indemnitor will not relieve it of any liability that it may have to any Indemnitee otherwise than under this Article 21. The Indemnitee under this Article 21, its employees and agents, shall cooperate fully with the Indemnitor and its legal representatives in the investigation of any action, claim or liability covered by this indemnification.

21.4 MERCK shall maintain product liability insurance with respect to manufacture and sales of LICENSED PRODUCTS by MERCK, its AFFILIATES or permitted sublicensees in such form and in such amount as MERCK customarily maintains with respect to sales of its other vaccine products, and VICAL shall be named as an additional insured on any such product liability insurance policy. MERCK shall maintain such insurance for so long as it continues to manufacture or sell any LICENSED PRODUCTS, and thereafter for so long as MERCK maintains insurance for itself covering such manufacture or sales.

ARTICLE 22 - MISCELLANEOUS

22.1 This Agreement, including all Schedules attached hereto,
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contains the entire understanding of the parties with respect to the subject matter hereof. All express or implied agreements and understandings, either oral or written, heretofore made are expressly merged in and made a part of this Agreement. This Agreement may be amended, or any term hereof modified, only by a written instrument duly executed by both parties hereto.

22.2 It is expressly agreed that MERCK and VICAL shall be independent contractors and that the relationship between the two parties shall not constitute a partnership, joint venture or agency. Neither MERCK nor VICAL shall have the authority to make any statements, representations or commitments of any kind, or to take any action, which shall be binding on the other party without the prior written consent of such other party.

22.3 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

MERCK & CO., INC.

VICAL INCORPORATED

By /s/ Edward M. Scolnick

By /s/ Dannie H. King

Edward M. Scolnick, M.D.

Title: President, MSDRL

Title: President and CEO

Date: 6/6/91

Date: 5/31/91

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SCHEDULE A

MILESTONES

FIRST ENTRY INTO PHASE I (or its equivalent) IN A MAJOR MARKET COUNTRY \$1.0M

FIRST ENTRY INTO PHASE III (or its equivalent) IN A MAJOR MARKET COUNTRY [*]

FIRST FILING OF PRODUCT LICENSE APPLICATION IN A MAJOR MARKET COUNTRY [*]

FIRST APPROVAL OF PRODUCT LICENSE APPLICATION IN A MAJOR MARKET COUNTRY [*]

"Major Market Country" shall mean the United States, EEC countries, Canada, or Japan.

[*] CONFIDENTIAL TREATMENT REQUESTED
SCHEDULE B

RESEARCH COLLABORATION PROGRAM

YEAR 1

[*]

[*] CONFIDENTIAL TREATMENT REQUESTED
SCHEDULE B (continued)

[*]

[*] CONFIDENTIAL TREATMENT REQUESTED
SCHEDULE C

SEE EXHIBIT 10.12
[MERCK & CO., INC. - LETTERHEAD]

SCHEDULE D

May 29, 1991

Mr. Kenneth U. Johnson
Marketing-Licensing
Wisconsin Alumni Research Foundation
P.O. Box 7365
Madison, Wisconsin 53707-7365

Re: Research Collaboration and License Agreement
Between Vical Incorporated and Merck & Co., Inc.

Dear Mr. Johnson:

Vical Incorporated and Merck & Co., Inc., anticipate entering into a Research Collaboration and License Agreement ("Vical License Agreement") involving intramuscular delivery of vaccines for the prevention of human infectious disease ("the Technology"). Under the proposed Agreement Merck would be granted an exclusive license from Vical.

Merck is aware that certain inventions involving the Technology are jointly owned by Vical and WARF and that pursuant to a License Agreement between the parties, dated January 1, 1991, ("WARF License Agreement") WARF has granted Vical an exclusive License to its interest in certain of the Technology. The grant is subject only to the rights, if any, of the United States Government to practice the invention for government purposes.

Pursuant to Section 2C of the WARF License Agreement, Merck hereby requests WARF's consent permitting Vical to extend the exclusive license granted by Vical to Merck with respect to WARF's ownership interest in certain of the Technology beyond any termination of the WARF License Agreement. In the event of such termination MERCK agrees to be bound by the terms of the WARF License Agreement to the extent of its license from Vical and for so long as the Vical License Agreement remains in affect.

If WARF is willing to permit such extension please have WARF indicate its consent by having an authorized representative sign and date this letter in the space provided below and return one original to me.

We have asked Vical to acknowledge its agreement to this arrangement by also signing and dating this letter.

Your cooperation in this matter is appreciated.

Sincerely,

/s/ George W. Brodhead

George W. Brodhead

5733n

/ac

AGREED TO AND ACCEPTED:

WISCONSIN ALUMNI RESEARCH
FOUNDATION

By: /s/ John R. Pike

Date: 5/31/91

ACKNOWLEDGED:

VICAL INCORPORATED

By: /s/ Dannie H. King

Date: 6/6/91

approved for execution:

/s/ P. Jeffrey Archibald

P. Jeffrey Archibald

May 31, 1991

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