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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 March 31, 2006,

or

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

For transition period from _____.

Commission File Number 001-31918

IDERA PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**04-3072298**
(State or other jurisdiction of Incorporation or organization)	*(I.R.S. Employer Identification Number)*

345 Vassar Street
Cambridge, Massachusetts 02139
(Address of principal executive offices)

(617) 679-5500
(Registrant's telephone number, including area code)

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 for 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 by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐ Accelerated filer ☐ Non-accelerated filer ☑

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act.) Yes ☐ No ☑

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

Common Stock, par value $.001 per share	**133,737,114**
Class	Outstanding as of May 1, 2006

IDERA PHARMACEUTICALS, INC.

FORM 10-Q

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FORWARD-LOOKING STATEMENTS

This quarterly report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical facts, included or incorporated in this report regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. The words "believes," "anticipates," "estimates," "plans," "expects," "intends," "may," "projects," "will," and "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We cannot guarantee that we actually will achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. There are a number of important factors that could cause our actual results to differ materially from those indicated or implied by forward-looking statements. These important factors include those set forth below under "Item 1A. Risk Factors." These factors and the other cautionary statements made in this quarterly report should be read as being applicable to all related forward-looking statements whenever they appear in this quarterly report. In addition, any forward-looking statements represent our estimates only as of the date that this quarterly report is filed with the SEC and should not be relied upon as representing our estimates as of any subsequent date. We do not assume any obligation to update any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

PART I — FINANCIAL STATEMENTS

ITEM 1. UNAUDITED FINANCIAL STATEMENTS

IDERA PHARMACEUTICALS, INC.

BALANCE SHEETS

(UNAUDITED)

	MARCH 31, 2006	DECEMBER 31, 2005
Assets		
Current assets:		
Cash and cash equivalents	$ 7,613,073	$ 984,766
Short-term investments	5,589,923	7,390,903
Receivables	182,696	175,905
Prepaid expenses and other current assets	549,866	498,347
Total current assets	13,935,558	9,049,921
Property and equipment, net	372,599	418,684
Deferred financing costs	464,903	520,692
Total Assets	$ 14,773,060	$ 9,989,297
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 709,605	$ 536,371
Accrued expenses	1,699,197	1,338,048
Current portion of capital lease	6,519	6,519
Current portion of deferred revenue	2,152,537	2,171,287
Total current liabilities	4,567,858	4,052,225
Long term 4% convertible notes payable	5,032,750	5,032,750
Capital lease	8,148	10,321
Deferred revenue, net of current portion	697,567	1,229,451
Stockholders' equity:		
Preferred stock, $0.01 par value		
Authorized — 5,000,000 shares		
Series A convertible preferred stock		
Designated — 1,500,000 shares		
Issued and outstanding — 655 at March 31, 2006 and December 31, 2005	7	7
Common stock, $0.001 par value		
Authorized—200,000,000 shares		
Issued and outstanding — 133,726,085 and 111,421,051 shares at March 31, 2006 and December 31, 2005, respectively	133,727	111,421
Additional paid-in capital	320,984,210	312,632,499
Accumulated deficit	(316,650,377)	(313,000,200)
Accumulated other comprehensive loss	(830)	(11,341)
Deferred compensation	—	(67,836)
Total stockholders' (deficit) equity	4,466,737	(335,450)
Total Liabilities and Stockholders' Equity (Deficit)	$ 14,773,060	$ 9,989,297

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

IDERA PHARMACEUTICALS, INC.

STATEMENTS OF OPERATIONS

(UNAUDITED)

	THREE MONTHS ENDED MARCH 31,	
	2006	**2005**
Alliance revenue	$ 635,717	$ 171,285
Operating expenses:		
Research and development	3,363,542	2,658,899
General and administrative	889,266	801,866
Total operating expenses	4,252,808	3,460,765
Loss from operations	(3,617,091)	(3,289,480)
Other income (expense):		
Investment income, net	72,505	67,136
Interest expense	(105,427)	—
Net loss	(3,650,013)	(3,222,344)
Accretion of preferred stock dividends	(164)	(164)
Net loss applicable to common stockholders	$ (3,650,177)	$ (3,222,508)
Basic and diluted net loss per share (Note 3)	$ (0.03)	$ (0.03)
Basic and diluted net loss per share applicable to common stockholders (Note 3)	$ (0.03)	$ (0.03)
Shares used in computing basic and diluted loss per common share	113,233,275	110,967,025

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

IDERA PHARMACEUTICALS, INC.

STATEMENTS OF CASH FLOWS

(UNAUDITED)

	THREE MONTHS ENDED MARCH 31,	
	2006	**2005**
Cash Flows From Operating Activities:		
Net loss	$(3,650,013)	$(3,222,344)
Adjustments to reconcile net loss to net cash used in operating activities -		
Loss on disposal of property and equipment	—	2,134
Stock-based compensation	247,007	83,753
Depreciation and amortization	108,579	46,945
Issuance of common stock for services rendered	2,941	8,235
Non-cash interest expense	49,638	—
Changes in operating assets and liabilities -		
Accounts receivable	(6,791)	84,078
Prepaid expenses and other current assets	(51,519)	(102,282)
Accounts payable and accrued expenses	484,745	(195,872)
Deferred revenue	(550,634)	(50,634)
Net cash used in operating activities	(3,366,047)	(3,345,987)
Cash Flows From Investing Activities:		
Purchase of available for sale securities	(1,990,200)	—
Proceeds from sale of available-for-sale securities	600,000	2,000,000
Proceeds from maturity of available-for-sale securities	3,200,000	—
Purchase of property and equipment	(5,014)	(8,037)
Net cash provided by investing activities	1,804,786	1,991,963
Cash Flow From Financing Activities:		
Sale of common stock and warrants, net of issuance costs	8,122,140	—
Proceeds from exercise of common stock options and warrants	69,600	28,901
Payments on capital lease	(2,172)	—
Net cash provided by financing activities	8,189,568	28,901
Net increase (decrease) in cash and cash equivalents	6,628,307	(1,325,123)
Cash and cash equivalents, beginning of period	984,766	5,021,860
Cash and cash equivalents, end of period	$ 7,613,073	$ 3,696,737
Supplemental disclosure of non-cash financing and investing activities:		
Accretion of Series A convertible preferred stock dividends	$ (164)	$ (164)
Issuance of common stock for services rendered	$ 2,941	$ 8,235

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

IDERA PHARMACEUTICALS, INC.

NOTES TO FINANCIAL STATEMENTS

MARCH 31, 2006

(UNAUDITED)

(1) Organization

Idera Pharmaceuticals, Inc. ("Idera" or the "Company") (AMEX: IDP) is a biotechnology company engaged in the discovery and development of novel therapeutics that modulate immune responses through Toll-like Receptors (TLRs) for the treatment of multiple diseases. The Company has developed proprietary DNA- and RNA- based compounds that modulate TLRs and are targeted to TLR7, TLR8 or TLR9. The Company believes that these immune modulatory oligonucleotide (IMO™) compounds are broadly applicable to large and growing markets where significant unmet medical needs exist, including oncology, asthma and allergies, infectious diseases and autoimmune diseases. The Company's lead drug candidate is IMO-2055, which is also referred to as HYB2055 or IMOxine®. IMO-2055 is a synthetic DNA-based compound, which acts as an agonist for TLR9 and triggers the activation and modulation of the immune system. IMO-2055 is currently in a Phase 2 clinical trial as a monotherapy in renal cell carcinoma and in a Phase 1/2 clinical trial in combination with chemotherapy agents for solid tumors. The Company has selected another TLR9 agonist, IMO-2125, as a lead compound for infectious diseases. The Company is also collaborating with Novartis International Pharmaceuticals, Ltd., or Novartis, to develop treatments for asthma and allergies using other of its TLR9 agonist compounds. The Company's IMO compounds targeted to TLR7 and TLR8 are in the discovery stage.

Based on its current operating plan, the Company believes that its existing cash, cash equivalents and short-term investments will be sufficient to fund operations through January 2007. In addition, in March 2006, the Company secured a commitment from an investor to purchase up to $9.8 million of the Company's common stock upon drawdowns made at the Company's discretion. The Company's ability to make drawdowns is conditioned upon (i) the effectiveness of a registration statement covering the resale of the shares to be issued under the commitment, except that the Company may draw down up to $2.5 million prior to such registration statement being declared effective, and (ii) stockholder approval of an increase in the number of authorized shares of common stock, which the Company plans to seek at its 2006 annual meeting of stockholders. If the Company elects to sell the full $9.8 million of its common stock, the Company expects that the proceeds from such sale would enable the Company to pursue its clinical and preclinical development programs and continue operations through mid-2007. The Company's actual cash requirements will depend on many factors, including particularly the scope and pace of its research and development efforts and its success in entering into strategic alliances.

The Company does not expect to generate significant additional funds internally until it successfully completes development and obtains marketing approval for products, either alone or in collaborations with third parties, which the Company expects will take a number of years. In addition, it has no other committed external sources of funds. As a result, in order for the Company to continue to pursue its clinical and preclinical development programs and continue its operations beyond January 2007, or mid-2007 if it draws down all of the funds pursuant to the commitment mentioned above, the Company must raise additional funds from debt or equity financings or from collaborative arrangements with biotechnology or pharmaceutical companies. There can be no assurance that the requisite funds will be available in the necessary time frame or on terms acceptable to the Company. If the Company is unable to raise sufficient funds, the Company may be required to delay, scale back or significantly curtail its operating plans and possibly relinquish rights to portions of the Company's technology or products. In addition, increases in expenses or delays in clinical development may adversely impact the Company's cash position and require further cost reductions. No assurance can be given that the Company will be able to operate profitably on a consistent basis, or at all, in the future.

(2) Unaudited Interim Financial Statements

The accompanying unaudited consolidated condensed financial statements included herein have been prepared by the Company in accordance with generally accepted accounting principles for interim financial information and pursuant to the rules and regulations of the Securities and Exchange Commission. Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. In the opinion of management, all adjustments, consisting of normal recurring adjustments, considered necessary for a fair presentation of interim period results have been included. The Company believes that its disclosures are adequate to make the information presented not misleading. Interim results for the three-month period ended March 31, 2006 are not necessarily indicative of results that may be expected for the year ended December 31, 2006. For further information, refer to the financial statements and footnotes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2005, which was filed with the Securities and Exchange Commission on March 31, 2006.

(3) Net Loss per Common Share

The following table sets forth the computation of basic and diluted loss per share:

	Three Months Ended March 31,	
	2006	2005
Numerator:		
Net loss	$ (3,650,013)	$ (3,222,344)
Accretion of preferred stock dividends	(164)	(164)
Numerator for basic and diluted loss per share applicable to common stockholders	$ (3,650,177)	$ (3,222,508)
Denominator for basic and diluted loss per share	113,233,275	110,967,025
Loss per share – basic and diluted:		
Net loss per share	$ (0.03)	$ (0.03)
Accretion of preferred stock dividends	—	—
Net loss per share applicable to common stockholders	$ (0.03)	$ (0.03)

Basic net loss per common share is computed using the weighted average number of shares of common stock outstanding during the period. For the three months ended March 31, 2006 and 2005, diluted net loss per share of common stock is the same as basic net loss per share of common stock, as the effects of the Company's potential common stock equivalents are antidilutive. Total antidilutive securities were 64,682,704 and 32,121,929 for the three months ended March 31, 2006 and 2005, respectively. These antidilutive securities include stock options, warrants and convertible preferred stock and are not included in the Company's calculation of diluted net loss per common share. Antidilutive securities for the three months ended March 31, 2006 also includes convertible debt instruments on an as-converted basis.

(4) Cash Equivalents and Investments

The Company considers all highly liquid investments with maturities of 90 days or less when purchased to be cash equivalents. Cash and cash equivalents at March 31, 2006 and December 31, 2005 consisted of cash and money market funds.

The Company accounts for investments in accordance with Statement of Financial Accounting Standards (SFAS) No. 115, "*Accounting for Certain Investments in Debt and Equity Securities*." Management determines the appropriate classification of marketable securities at the time of purchase. In accordance with SFAS No. 115, investments that the Company does not have the positive intent to hold to maturity are classified as "available-for-sale" and reported at fair market value. Unrealized gains and losses associated with "available-for-sale" investments are recorded in "Accumulated other comprehensive loss" on the accompanying consolidated balance sheet. The

amortization of premiums and accretion of discounts, and any realized gains and losses and declines in value judged to be other than temporary, and interest and dividends are included in "Investment income, net" on the accompanying consolidated statement of operations for all available-for-sale securities. The Company had no "held-to-maturity" investments, as defined by SFAS No. 115, at March 31, 2006 and December 31, 2005. The cost of securities sold is based on the specific identification method. The Company had no realized gains or losses for the three-month periods ended March 31, 2006 and 2005. There were no losses or permanent declines in value included in "investment income" for any securities in the three months ended March 31, 2006 and 2005.

The Company had no long-term investments as of March 31, 2006 and December 31, 2005. Available-for-sale securities are classified as short-term regardless of their maturity date as if the Company considers them available to fund operations within one year of the balance sheet date. Auction securities are highly liquid securities that have floating interest or dividend rates that reset periodically through an auctioning process that sets rates based on bids. Issuers include municipalities, closed-end bond funds and corporations. These securities can either be debt or preferred shares. The Company's short-term available-for-sale investments at market value consisted of the following at March 31, 2006 and December 31, 2005:

	March 31, 2006	December 31, 2005
Corporate bonds due in one year or less	$ 500,150	$ 2,102,432
Government bonds due in one year or less	1,497,790	2,484,975
Short term notes	300,441	901,820
Auction securities	1,297,152	1,901,676
Commercial paper	1,994,390	—
Total	$5,589,923	$ 7,390,903

(5) Property and Equipment

At March 31, 2006 and December 31, 2005, net property and equipment at cost consists of the following:

	March 31, 2006	December 31, 2005
Leasehold improvements	$ 424,500	$ 424,500
Laboratory equipment and other	1,932,964	1,927,950
Total property and equipment, at cost	2,357,464	2,352,450
Less: Accumulated depreciation and amortization	1,984,865	1,933,766
Property and equipment, net	$ 372,599	$ 418,684

Depreciation expense, which includes amortization of assets recorded under capital leases, was approximately $51,000 and $37,000 for the three months ended March 31, 2006 and 2005, respectively. In the first quarter of 2005, the Company wrote off unused property and equipment that had a cost of approximately $109,000 resulting in a loss of approximately $2,000.

(6) Stock-Based Compensation

The Company adopted SFAS No. 123R, *"Share-Based Payment,"* on January 1, 2006. This statement requires the Company to recognize all share-based payments to employees in the financial statements based on their fair values. Under SFAS No. 123R, the Company is required to record compensation expense over an award's vesting period based on the award's fair value at the date of grant. The Company has elected to adopt SFAS No. 123R on a modified prospective basis; accordingly, the financial statements for periods prior to January 1, 2006, will not include compensation cost calculated under the fair value method. The Company's policy is to charge the fair value of stock options as an expense on a straight-line basis over the vesting period.

Prior to January 1, 2006, the Company applied Accounting Principles Board ("APB") Opinion No. 25, *"Accounting for Stock Issued to Employees,"* and therefore, recorded the intrinsic value of stock-based compensation as an expense. The following table illustrates the pro forma effect on net income and earnings per share if the Company had applied the fair value recognition provisions of SFAS No. 123, *"Accounting for Stock-Based Compensation,"* to stock-based employee compensation for the three months ended March 31, 2005.

	March 31, 2005
Net loss applicable to common stockholders, as reported	$ (3,222,508)
Less: stock-based compensation expense included in reported net loss	83,753
Add: stock-based employee compensation expense determined under fair value based method for all awards	(216,072)
Pro forma net income (loss) applicable to common stockholders, as adjusted for the effect of applying SFAS No. 123	$ (3,354,827)
Basic and diluted net loss per share applicable to common stockholders —	
As reported	$ (0.03)
Pro forma	$ (0.03)

As explained in Note 7, prior to adopting SFAS 123R on January 1, 2006, the Company recorded changes in the intrinsic value of its repriced options in its Statement of Operations, including the $83,753 charge in the first quarter of 2005, which is shown in the above table. In accordance with SFAS 123R, the Company no longer includes changes in the intrinsic value of its repriced options in its Statement of Operations.

During the first quarter of 2006, the Company included a charge of $247,000 in its Statement of Operations. The $247,000 charge represents the stock compensation expense computed in accordance with SFAS 123R. There was no corresponding charge included in the Statement of Operations during the first quarter of 2005. The adoption of SFAS 123R had no effect on cash flows or basic and diluted earnings per share during the first quarter of 2006.

The Company's stock compensation plans include the 1995 Stock Option Plan, the 1995 Director Stock Option Plan, the 1995 Employee Stock Purchase Plan, the 1997 Stock Incentive Plan and the 2005 Stock Incentive Plan, all of which have been approved by stockholders. Pursuant to the terms of the plan, no additional options are being granted under the 1995 Stock Option Plan. A total of 19,800,000 options may be granted under the other shareholder approved plans. The Company has also granted options to purchase shares of Common Stock pursuant to agreements that were not approved by stockholders.

Under the Company's stock option and incentive plans, options may be granted to directors, officers and employees. Stock option grants generally vest ratably over three to four years and expire within ten years after the date of grant. Stock options granted under the 1995 Director Stock Option Plan vest in one year.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model and expensed over the requisite service period on a straight-line basis. The following assumptions apply to the options granted for the three months ended March 31, 2006 and 2005:

	March 31,	
	2006	2005
Weighted average expected term (years)	6.0	6.0
Weighted average expected volatility	90.7%	75.0%
Weighted average dividend per share	—	—
Weighted average risk free interest rate	4.3%	3.7%
Weighted average fair value of options granted per share	$0.46	$0.33

Effective January 1, 2006, the Company modified the assumptions used to determine the fair value of options granted in accordance with SFAS No. 123R and SEC Staff Accounting Bulletin (SAB) No. 107. The assumptions used to determine the fair values of options granted after January 1, 2006 are based on the following:

(i) The expected term represents the period of time that the options are expected to be outstanding. Where appropriate in accordance with SAB 107, the Company utilized the midpoint between the vesting date and the contractual term in determining the expected term of options that met the criteria for using this method under SAB 107. The expected term of options that do not meet the SAB 107 criteria is based on historical experience with exercise and post-vesting employment termination behavior.

(ii) The expected volatility is based on the historical volatility of the Company's closing stock price on the last trading day of each calendar month for a period equal to the expected term of the option.

(iii) The risk-free interest rate is based on the U.S. Treasury rate with a maturity date that corresponds with the expected term of the option.

Stock option activity for the three months ended March 31, 2006 is summarized as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Life in Years	Aggregate Intrinsic Value
Outstanding, December 31, 2005	20,385,278	$ 0.71		
Granted	502,000	0.60		
Exercised	(111,006)	0.50		
Terminated	(558,779)	0.61		
Outstanding, March 31, 2006	20,217,493	0.72	6.25	$938,071
Exercisable, March 31, 2006	14,282,915	0.76	5.14	553,387

As of March 31, 2006, there was $2.1 million of total unrecognized compensation cost related to unvested stock-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 2.9 years.

Additional information on option activity for the three months ended March 31, 2006 is as follows:

	Three Months ended March 31, 2006
Total fair value of shares vested	$ 259,691
Total intrinsic value of options exercised	11,989

(7) Stock-Based Compensation Related to Repriced Options

In September 1999, the Company's Board of Directors authorized the repricing of options to purchase 5,251,827 shares of common stock to $0.50 per share, which represented the market value of the common stock on the date of the repricing. Prior to the adoption of SFAS 123R, these options were subject to variable plan accounting which required the Company to re-measure the intrinsic value of the repriced options, through the earlier of the date of exercise, cancellation or expiration, at each reporting date. For the three months ended March 31, 2005, the Company recognized $83,753 as stock compensation expense from repriced options as a result of an increase in the intrinsic value of these options between December 31, 2004 and March 31, 2005.

(8) Related Party Transactions

In the three months ended March 31, 2006 and in connection with the financing commitment discussed in Note (10)(b), the Company agreed to pay one of the Company's directors a commission equal in value to 5% of the

amount available to the Company under the financing commitment described in Note (10)(b) below. The Company has paid $262,500 of such commission and is negotiating the form of payment for the remaining $225,000. In the three months ended March 31, 2006 and 2005, the Company paid another director of the Company $5,000 for consulting services.

(9) Comprehensive Income

The following table includes the components of comprehensive income for the three months ended March 31, 2006 and 2005.

	March 31, 2006	March 31, 2005
Net loss	$ (3,650,013)	$ (3,222,344)
Other comprehensive income	10,511	5,269
Total comprehensive loss	$ (3,639,502)	$ (3,217,075)

Other comprehensive income represents the net unrealized gains on available-for-sale investments.

(10) 2006 Financings

(a) Private Financing

On March 24, 2006, the Company raised approximately $9.8 million in gross proceeds from a private placement to institutional investors. In the private placement, the Company sold for a purchase price of $0.44 per share 22,159,092 shares of common stock and warrants to purchase 16,619,319 shares of common stock. The warrants to purchase common stock have an exercise price of $0.65 per share and will expire if not exercised on or prior to September 24, 2011. The warrants may be exercised by cash payment only and are exercisable any time on or after September 24, 2006. After March 24, 2010, the Company may redeem the warrants for $0.01 per warrant share following notice to the warrant holders if the volume weighted average of the closing sales price of the common stock exceeds 300% of the warrant exercise price for the 15-day period preceding the notice. The Company may exercise its right to redeem the warrants by providing 20 days prior written notice to the holders of the warrants. The net proceeds to the Company from the offering, excluding the proceeds of any future exercise of the warrants, total approximately $8.9 million. The Company has filed a registration statement covering the common stock and the common stock issuable upon exercise of the warrants, which has been declared effective. Under a registration rights agreement, the Company is subject to liquidated damages equal to 1% of the aggregate purchase price of the securities purchased in the private financing and then held by the purchasers for each 30 day period during which sales of such securities cannot be made pursuant to such registration statement after it has been declared effective, in each case subject to specified exemptions and to an overall maximum of 10% of the purchase price of the securities.

(b) Financing Commitment

On March 24, 2006, the Company secured a commitment from an investor to purchase up to $9.8 million of the Company's common stock between June 24, 2006 and December 31, 2006. The Company may require the investor to purchase in up to three drawdowns, which shall be made at its discretion, up to $9.8 million of newly-issued shares of the Company's common stock at a price that is equal to the greater of 80% of the volume weighted average closing price during a five-day pricing period preceding the date that the Company notifies the investor of the sale and a floor price of $0.64 per share. The Company's ability to make drawdowns is conditioned upon (i) the effectiveness of a registration statement covering the resale of the shares to be issued under the commitment, except that the Company may drawdown up to $2.5 million prior to such registration statement being declared effective, and (ii) stockholder approval of an increase in the Company's authorized common stock, which the Company expects to seek at its 2006 annual meeting of stockholders, except for approximately $1.0 million which the Company could issue without seeking shareholder approval of an increase in authorized common stock. No drawdown may occur within 45 days of any other drawdown, and no single drawdown may exceed $4.0 million. Based on the floor price, a maximum of 15,234,375 shares of common stock could be issued under the commitment.

The Company is not obligated to sell any of the $9.8 million of common stock available under the commitment and there are no minimum commitments or minimum use penalties. The commitment does not contain any restrictions on the Company's operating activities, automatic pricing resets or minimum market volume restrictions. The agent fees and other costs directly related to securing the commitment amount to approximately $0.9 million. If the Company elects to sell the entire $9.8 million of its common stock pursuant to the commitment, the net proceeds to the Company, excluding the proceeds of any future exercise of the warrants, will be approximately $8.9 million. As part of the arrangement, the Company issued warrants to the investor to purchase 6,093,750 shares of common stock at an exercise price of $0.74 per share. The warrants are exercisable by cash payment only. The warrants are exercisable beginning September 24, 2006. The warrants expire if not exercised by September 24, 2011. On or after March 24, 2010, Idera may redeem the warrants for $0.01 per warrant share following notice to the warrant holders if the closing sales price of the common stock exceeds 250% of the warrant exercise price for 15 consecutive trading days prior to the notice. The Company may exercise its right to redeem the warrants by providing at least 30 days prior written notice to the holders of the warrants. The Company has filed a registration statement covering the common stock issuable upon exercise of the warrants, which has been declared effective.

(c) Amendment to Rights Agreement

On March 24, 2006, in connection with the private financing described in Note 10(a), the Company entered into an amendment ("Amendment No. 2") to the Rights Agreement, dated as of December 10, 2001, as amended (the "Rights Agreement"), between the Company and Mellon Investor Services LLC, as Rights Agent. Amendment No. 2 modifies the definition of "Exempted Persons" that are excluded from the definition of "Acquiring Person" under the Rights Agreement to provide that Baker Brothers Investments, together with its affiliates and associates (the "Baker Entities"), will be an Exempted Person under the Rights Agreement until such time as the Baker Entities beneficially own more than 35,000,000 shares of the Company's common stock (subject to adjustment) or less than 14% of the common stock then outstanding.

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

GENERAL

We are engaged in the discovery and development of novel therapeutics that modulate immune responses through Toll-like Receptors, or TLRs, for the treatment of multiple diseases. We have developed proprietary DNA- and RNA-based compounds that modulate TLRs and are targeted to TLR7, TLR8 or TLR9. We believe that these immune modulatory oligonucleotide, or IMO™, compounds are broadly applicable to large and growing markets where significant unmet medical needs exist, including oncology, asthma and allergies, infectious diseases and autoimmune diseases. IMO-2055, our lead drug candidate, is a synthetic DNA-based compound, which acts as an agonist for TLR9 and triggers the activation and modulation of the immune system. IMO-2055 is currently in a Phase 2 clinical trial as a monotherapy for renal cell carcinoma and a Phase 1/2 clinical trial in combination with chemotherapy agents for solid tumors. We have selected another TLR9 agonist, IMO-2125, as a lead compound for infectious diseases. We are also collaborating with Novartis to develop treatments for asthma and allergies using other of our TLR9 agonist compounds. Our IMO compounds targeted to TLR7 and TLR8 are in the discovery stage.

Since 2003, we have devoted substantially all of our research and development efforts to our IMO technology and products and expect to continue that focus in future years. Although we were a pioneer in the development of antisense technology and are the owner or licensee of over 500 patents and patent applications in this area, we are no longer developing our antisense technologies in-house and continue to seek additional collaborators to develop our antisense technologies externally.

We have incurred total losses of $316.7 million through March 31, 2006 and expect to incur substantial operating losses in the future. In order to commercialize our therapeutic products, we need to address a number of technological challenges and to comply with comprehensive regulatory requirements. In 2006, we expect that our research and development expenses will be higher than those in 2005 as we continue to advance IMO-2055 through clinical development.

APPLICATION OF CRITICAL ACCOUNTING POLICIES

This management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments, including those related to revenue recognition. Management bases its estimates and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We regard an accounting estimate or assumption underlying our financial statements as a "critical accounting estimate" where (i) the nature of the estimate or assumption is material due to the level of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change; and (ii) the impact of the estimates and assumptions on financial condition or operating performance is material.

Our significant accounting policies are described in Note 2 of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2005. Not all of these significant accounting policies, however, fit the definition of "critical accounting estimates." We believe that our accounting policies relating to revenue recognition, as described under the caption "Item 7. Management's Discussion and Analysis of

Financial Condition and Results of Operations – Critical Accounting Policies" in our Annual Report on Form 10-K for the year ended December 31, 2005, fit the definition of "critical accounting estimates and judgments."

STOCK BASED COMPENSATION

On January 1, 2006, we adopted Statement of Financial Accounting Standards (SFAS) No. 123R, "*Share-Based Payment"*. This statement requires us to recognize all share-based payments to employees in the financial statements based on their fair values. We have chosen to adopt SFAS 123R on a modified prospective basis and the statement of operations does not include compensation costs calculated under the fair value method of SFAS 123R in the first quarter of 2005. Since the adoption of this new guidance there have been no significant changes in the quantity or types of instruments used in stock-based compensation programs, nor have there been any significant changes in the terms of existing stock-based compensation arrangements and no material cumulative adjustments were recorded in the first quarter of 2006.

During the first quarter of 2006, we included a charge of $247,000 in our statement of operations, which represents the stock compensation expense computed in accordance with SFAS 123R. There was no corresponding charge included in the statement of operations during the first quarter of 2005. We expect that the stock based compensation charges in our statement of operations for the remaining quarters of 2006 will be similar to the charge included in the first quarter of 2006 with no corresponding charges in the 2005 quarters. However, the amount of future charges cannot be forecasted precisely since it is dependent, in part, on future stock option grants and other factors which cannot be accurately predicted at this time.

Prior to adopting SFAS 123R on January 1, 2006, we recorded changes in the intrinsic value of our repriced options in our Statement of Operations, including a $83,753 charge in the first quarter of 2005. In accordance with SFAS 123R, we no longer include changes in the intrinsic value of our repriced options in our statement of operations.

As of March 31, 2006, there was $2.1 million of total unrecognized compensation cost related to unvested stock-based compensation arrangements. That cost is expected to be recognized over a weighted-average period of 2.9 years.

RESULTS OF OPERATIONS

Three Months Ended March 31, 2006 and 2005

Alliance Revenue

Total alliance revenue increased by $465,000, or 272%, from $171,000 for the three months ended March 31, 2005 to $636,000 for the three months ended March 31, 2006. The difference in revenues between the first quarter of 2006 and the first quarter of 2005 was primarily due to license fees we recognized under our collaboration agreement with Novartis, which we entered into in May 2005. In July 2005, we received from Novartis a $4.0 million upfront fee in connection with this agreement. We are recognizing this $4.0 million upfront license fee over two years with the balance being recorded in deferred revenue. Our revenues for both periods were comprised of revenue earned under various collaboration and licensing agreements for research and development, including reimbursement of third-party expenses, license fees, sublicense fees, and royalty payments.

Research and Development Expenses

Research and development expenses increased by $705,000, or 27%, from $2,659,000 for the three months ended March 31, 2005 to $3,364,000 for the three months ended March 31, 2006. The increase in the first quarter of 2006 was primarily attributable to increased costs associated with the development of our lead cancer drug candidate, IMO-2055. The increase was also attributable to IND-enabling safety study costs associated with our pre-IND lead infectious disease compound, IMO-2125, and stock-based compensation attributable, in part, to our adoption of SFAS 123R.

Our lead drug candidate in our IMO program is IMO-2055. We are developing IMO-2055 for oncology applications under the name IMOxine. In the three months ended March 31, 2006 and 2005, we incurred approximately $1.0 million and $0.7 million, respectively, in direct external expenses to develop IMO-2055. These expenses include payments to independent contractors and vendors for our ongoing clinical trials and for preclinical studies. For the three months ended March 31, 2005, these expenses also included drug manufacturing and related costs. Internal costs such as payroll and overhead are excluded.

In October 2004, we commenced patient recruitment for an open label, multi-center Phase 2 clinical trial of IMO-2055 as a monotherapy in patients with metastatic or recurrent clear cell renal carcinoma. We originally planned to recruit a minimum of 46 patients who had previously failed one prior therapy, or "second-line" patients, into the first stage of the trial. We also expected to enroll in the first stage of the trial some treatment-naïve patients, although the original protocol did not specify a target enrollment for treatment-naïve patients. In October 2005, in response to a higher than expected enrollment rate of treatment-naïve patients in the Phase 2 trial, we submitted to the FDA a protocol amendment that provides for enrollment of up to 46 treatment-naïve patients in the first stage of the trial, in addition to the 46 second-line patients provided for by the original study design. As a result, we are now seeking to enroll up to 92 patients in the first stage of the trial and we plan to continue patient recruitment into the first half of 2006.

On October 26, 2005, we initiated a Phase 1/2 clinical trial of IMO-2055 in combination with the chemotherapy agents gemcitabine, marketed by Eli Lilly as Gemzar®, and carboplatin at the Lombardi Comprehensive Cancer Center at Georgetown University Medical Center. We are seeking to enroll 12 to 18 refractory solid tumor patients in the Phase 1 portion of the trial to evaluate the safety of the combination. If successful, we plan to use Phase 1 data for dose selection for the subsequent Phase 2 portion of the trial as first-line treatment of non-small cell lung cancer patients.

Because our IMO-2055 development and our other research and development programs are in the early stage of development and given the technological and regulatory hurdles likely to be encountered in the development and commercialization of our products, the future timing and costs of our various research and development programs are uncertain.

General and Administrative Expenses

General and administrative expenses increased by $87,000, or 11%, from $802,000 in the three months ended March 31, 2005 to $889,000 in the three months ended March 31, 2006. The increase primarily reflects higher stock-based compensation resulting from our adoption of SFAS 123R.

Investment Income, net

Investment income increased by approximately $6,000, or 8%, from $67,000 in the three months ended March 31, 2005 to $73,000 in the three months ended March 31, 2006. This increase resulted from higher interest rates and less premium amortization offsetting interest income in the three months ended March 31, 2006.

Interest Expense

For the three months ended March 31, 2006, interest expense of approximately $105,000 consisted of interest on our 4% convertible subordinated notes issued in May 2005 and amortization of deferred financing costs associated with these notes. We had no interest expense for the three months ended March 31, 2005.

Net Loss Applicable to Common Stockholders

As a result of the factors discussed above, our net loss applicable to common stockholders amounted to $3,650,000 for the three months ended March 31, 2006, as compared to $3,223,000 for the three months ended March 31, 2005.

LIQUIDITY AND CAPITAL RESOURCES

Sources of Liquidity

We require cash to fund our operating expenses, to make capital expenditures and to pay debt service. Historically, we have funded our cash requirements primarily through the following:

- equity and debt financing;
- license fees and research funding under collaborative and license agreements;
- interest income; and
- lease financings.

In March 2006, we raised approximately $9.8 million in gross proceeds from a private placement to institutional investors. In the private placement, we sold for a purchase price of $0.44 per share 22,159,092 shares of common stock and warrants to purchase 16,619,319 shares of common stock. The warrants to purchase common stock have an exercise price of $0.65 per share and will expire if not exercised on or prior to September 24, 2011. The warrants may be exercised by cash payment only and are exercisable any time on or after September 24, 2006. After March 24, 2010, we may redeem the warrants for $0.01 per warrant share following notice to the warrant holders if the volume weighted average of the closing sales price of the common stock exceeds 300% of the warrant exercise price for the 15-day period preceding the notice. We may exercise our right to redeem the warrants by providing 20 days prior written notice to the holders of the warrants. The net proceeds to us from the offering, excluding the proceeds of any future exercise of the warrants, totaled approximately $8.9 million.

In March 2006, we secured a commitment from an investor to purchase up to $9.8 million of our common stock between June 24, 2006 and December 31, 2006. We may require the investor to purchase in up to three drawdowns, which shall be made at our discretion, up to $9.8 million of newly-issued shares of our common stock at a price that is equal to the greater of 80% of the volume weighted average closing price during a five-day pricing period preceding the date that we notify the investor of the sale and a floor price of $0.64 per share. Our ability to make drawdowns is conditioned upon (i) the effectiveness of a registration statement covering the resale of the shares to be issued under the commitment, except that we may drawdown up to $2.5 million prior to such registration statement being declared effective, and (ii) stockholder approval of an increase in our authorized common stock, which we expect to seek at our 2006 annual meeting of stockholders, except for approximately $1.0 million which we could issue without seeking shareholder approval of an increase in our authorized common stock. No drawdown may occur within 45 days of any other drawdown, and no single drawdown may exceed $4.0 million. Based on the floor price, a maximum of 15,234,375 shares of common stock could be issued under the commitment. We are not obligated to sell any of the $9.8 million of common stock available under the commitment and there are no minimum commitments or minimum use penalties. The commitment does not contain any restrictions on our operating activities, automatic pricing resets or minimum market volume restrictions. The agent fees and other costs directly related to securing the commitment amount to approximately $0.9 million. If we elect to sell the entire $9.8 million of our common stock pursuant to the commitment, the net proceeds to us, excluding the proceeds of any future exercise of the warrants, will be approximately $8.9 million. As part of the arrangement, we issued warrants to the investor to purchase 6,093,750 shares of our common stock at an exercise price of $0.74 per share. The warrants are exercisable by cash payment only. The warrants are exercisable beginning on September 24, 2006. The

warrants expire if not exercised by September 24, 2011. On or after March 24, 2010, we may redeem the warrants for $0.01 per warrant share following notice to the warrant holders if the closing sales price of the common stock exceeds 250% of the warrant exercise price for 15 consecutive trading days prior to the notice. We may exercise our right to redeem the warrants by providing at least 30 days prior written notice to the holders of the warrants.

In connection with the financing commitment discussed above, we agreed to pay one of our directors a commission equal in value to 5% of the amount available to us under the purchase agreement. We have paid $262,500 of such commission and are negotiating the form of payment for the remaining $225,000.

Cash Flows

As of March 31, 2006, we had approximately $13,203,000 in cash, cash equivalents and short-term investments, an increase of approximately $4,827,000 from December 31, 2005.

We used approximately $3,366,000 of cash for operating activities during the three months ended March 31, 2006, principally to fund our research and development expenses and our general and administrative expenses. The $3,366,000 primarily consists of our net loss of $3,650,000 for the period, as adjusted for non-cash stock-based compensation, the increase in our prepaid expenses reflecting scheduled payments for our Phase 2 clinical trial, the increase in our accrued expenses and a decrease in our deferred revenue.

The net cash provided by investing activities during the first quarter of 2006 of $1,805,000 reflects our purchase of approximately $1,990,000 in securities offset by our sale of $600,000 of securities and the proceeds of approximately $3,200,000 from securities that matured in the first quarter of 2006.

The net cash of approximately $8,190,000 provided by financing activities during the first quarter of 2006 reflects the approximately $9,750,000 in gross proceeds that we received from the private placement financing offset by the associated expenses of both the March 2006 private placement and the March 2006 financing commitment. Net cash provided by financing activities also reflects approximately $70,000 we received from the exercise of stock options during the three months ended March 31, 2006.

Funding Requirements

We believe that, based on our current operating plan, our existing cash, cash equivalents and short-term investments will be sufficient to fund our operations through January 2007. In addition, in March 2006, we entered into an agreement with an investor under which the investor agreed to purchase up to $9.8 million of our common stock upon drawdowns made at our discretion. Our ability to access this commitment and sell common stock to such investor is subject to stockholder approval of an increase in the number of authorized shares of common stock, which we plan to seek at our annual meeting of stockholders in June 2006, and the effectiveness of a registration statement covering the resale of the shares to be sold. If we are able to access the commitment and sell the full $9.8 million under it, we expect to have sufficient cash and investments to be able to pursue our clinical and preclinical development programs and continue operations through mid-2007.

We do not expect to generate significant additional funds internally until we successfully complete development and obtain marketing approval for products, either alone or in collaboration with third parties, which we expect will take a number of years. In addition, we have no committed external sources of funds. As a result, in order for us to continue to pursue our clinical and preclinical development programs and continue operations beyond January 2007, or mid-2007 if we drawdown all of the funds pursuant to the commitment, we must raise additional funds in 2007 from debt, equity financings or from collaborative arrangements with biotechnology or pharmaceutical companies. There can be no assurance that the requisite funds will be available in the necessary time frame or on terms acceptable to us. Should we be unable to raise sufficient funds, we may be required to significantly curtail our operating plans and possibly relinquish rights to portions of our technology or products. In addition, increases in expenses or delays in clinical development may adversely impact our cash position and require further cost

reductions. No assurance can be given that we will be able to operate profitably on a consistent basis, or at all, in the future.

We believe that the key factors that will affect our internal and external sources of cash are:

- the success of our clinical and preclinical development programs;
- the receptivity of the capital markets to financings by biotechnology companies; and
- our ability to enter into strategic collaborations with biotechnology and pharmaceutical companies and the success of such collaborations.

Contractual Obligations

We have contractual obligations in the form of employment agreements, operating leases and consulting and collaboration agreements. We renewed our agreement with our chief financial officer in April 2006.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

As of March 31, 2006, we have no assets and liabilities related to non-dollar-denominated currencies.

We maintain investments in accordance with our investment policy. The primary objectives of our investment activities are to preserve principal, maintain proper liquidity to meet operating needs and maximize yields. Although our investments are subject to credit risk, our investment policy specifies credit quality standards for our investments and limits the amount of credit exposure from any single issue, issuer or type of investments. We do not own derivative financial investment instruments in our investment portfolio.

Based on a hypothetical ten percent adverse movement in interest rates, the potential losses in future earnings, fair value of risk sensitive financial instruments, and cash flows are immaterial, although the actual effects may differ materially from the hypothetical analysis.

ITEM 4. CONTROLS AND PROCEDURES

(a) *Evaluation of Disclosure Controls and Procedures.* Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2006. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2006, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

(b) *Changes in Internal Controls*. No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act) occurred during the fiscal quarter ended March 31, 2006 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

IDERA PHARMACEUTICALS, INC.

PART II — OTHER INFORMATION

ITEM 1A. RISK FACTORS.

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below before purchasing our common stock. If any of the following risks actually occurs, our business, financial condition or results of operations would likely suffer, possibly materially. In that case, the trading price of our common stock could fall, and you may lose all or part of the money you paid to buy our common stock.

Risks Relating to Our Financial Results and Need for Financing

We have incurred substantial losses and expect to continue to incur losses. We will not be successful unless we reverse this trend.

We have incurred losses in every year since our inception, except for 2002 when our recognition of revenues under a license and collaboration agreement resulted in us reporting net income for that year. As of March 31, 2006, we had incurred operating losses of approximately $316.7 million. We expect to continue to incur substantial operating losses in future periods. These losses, among other things, have had and will continue to have an adverse effect on our stockholders' equity, total assets and working capital.

We have received no revenues from the sale of drugs. To date, almost all of our revenues have been from collaborative and license agreements. We have devoted substantially all of our efforts to research and development, including clinical trials, and we have not completed development of any drugs. Because of the numerous risks and uncertainties associated with developing drugs, we are unable to predict the extent of any future losses, whether or when any of our products will become commercially available, or when we will become profitable, if at all.

We will need additional financing, which may be difficult to obtain. Our failure to obtain necessary financing or doing so on unattractive terms could adversely affect our discovery and development programs and other operations.

We will require substantial funds to conduct research and development, including preclinical testing and clinical trials of our drugs. We will also require substantial funds to conduct regulatory activities and to establish commercial manufacturing, marketing and sales capabilities. We believe that, based on our current operating plan, our existing cash, cash equivalents and short-term investments will be sufficient to fund our operations through January 2007. In March 2006, we secured a commitment from an investor to purchase up to $9.8 million of our common stock upon drawdowns made at our discretion. Our ability to access this commitment and sell common stock to such investor is subject to stockholder approval of an increase in the number of authorized shares of common stock, which we plan to seek at our annual meeting of stockholders in June 2006, and the effectiveness of a registration statement covering the resale of the shares to be sold. If we are able to make drawdowns under this commitment and sell the full $9.8 million of common stock under it, we expect to have sufficient cash and investments to be able to pursue our clinical and preclinical development programs and continue operations through mid-2007.

We will need to raise additional funds to operate our business beyond such time. We believe that the key factors that will affect our ability to obtain additional funding are:

- the success of our clinical and preclinical development programs;
- the receptivity of the capital markets to financings by biotechnology companies; and

- our ability to enter into strategic collaborations with biotechnology and pharmaceutical companies and the success of such collaborations.

Additional financing may not be available to us when we need it or may not be available to us on favorable terms. We could be required to seek funds through arrangements with collaborators or others that may require us to relinquish rights to some of our technologies, drug candidates or drugs which we would otherwise pursue on our own. In addition, if we raise additional funds by issuing equity securities, our then existing stockholders will experience dilution. The terms of any financing may adversely affect the holdings or the rights of existing stockholders. If we are unable to obtain adequate funding on a timely basis or at all, we may be required to significantly curtail one or more of our discovery or development programs. For example, we significantly curtailed expenditures on our research and development programs during 1999 and 2000 because we did not have sufficient funds available to advance these programs at planned levels.

Risks Relating to Our Business, Strategy and Industry

We are depending heavily on the success of our lead drug candidate, IMO-2055, which is in clinical development. If we are unable to commercialize this product, or experience significant delays in doing so, our business will be materially harmed.

We are investing a significant portion of our time and financial resources in the development of our lead drug candidate, IMO-2055. We anticipate that our ability to generate product revenues will depend heavily on the successful development and commercialization of this product. The commercial success of this product will depend on several factors, including the following:

- acceptable safety profile during the trial and during commercial use;
- successful completion of clinical trials;
- receipt of marketing approvals from the FDA and equivalent foreign regulatory authorities;
- establishing commercial manufacturing arrangements with third-party manufacturers;
- launching commercial sales of the product, whether alone or in collaboration with others; and
- acceptance of the product in the medical community and with third-party payors.

Our efforts to commercialize this product are at an early stage, as we are currently conducting a Phase 2 clinical trial in patients with metastatic or recurrent clear cell renal carcinoma. If we are not successful in commercializing this product, or are significantly delayed in doing so, our business will be materially harmed.

If our clinical trials are unsuccessful, or if they are significantly delayed, we may not be able to develop and commercialize our products.

We may not be able to successfully complete any clinical trial of a potential product within any specified time period. In some cases, we may not be able to complete the trial at all. Moreover, clinical trials may not show our potential products to be both safe and efficacious. Thus, the FDA and other regulatory authorities may not approve any of our potential products for any indication.

In order to obtain regulatory approvals for the commercial sale of our products, we will be required to complete extensive clinical trials in humans to demonstrate the safety and efficacy of our drug candidates. We may not be able to obtain authority from the FDA or other equivalent foreign regulatory agencies to complete these trials or commence and complete any other clinical trials.

The results from preclinical testing of a drug candidate that is under development may not be predictive of results that will be obtained in human clinical trials. In addition, the results of early human clinical trials may not be predictive of results that will be obtained in larger scale, advanced stage clinical trials. A failure of one or more of our clinical trials can occur at any stage of testing. Further, there is to date little data on the long-term clinical safety of our lead compounds under conditions of prolonged use in humans, or on any long-term consequences subsequent to human use. We may experience numerous unforeseen events during, or as a result of, preclinical testing and the clinical trial process that could delay or inhibit our ability to receive regulatory approval or to commercialize our products, including:

- regulators or institutional review boards may not authorize us to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- our preclinical tests or clinical trials may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional preclinical testing or clinical trials or we may abandon projects that we expect may not be promising;
- we might have to suspend or terminate our clinical trials if the participating patients are being exposed to unacceptable health risks;
- regulators or institutional review boards may require that we hold, suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements;
- the cost of our clinical trials may be greater than we currently anticipate; and
- the effects of our products may not be the desired effects or may include undesirable side effects or the products may have other unexpected characteristics.

As an example, in 1997, after reviewing the results from the clinical trial of GEM91, a first generation antisense compound and our lead drug candidate at the time, we determined not to continue the development of GEM91 and suspended clinical trials of this product candidate.

The rate of completion of clinical trials is dependent in part upon the rate of enrollment of patients. The statistical design of our ongoing Phase 2 clinical trial of IMO-2055 in renal cell carcinoma was originally based on patients who had already failed one course of therapy, whom we refer to as second-line patients. As of October 2005, our enrollment of second-line patients was less than anticipated, whereas the enrollment of treatment-naïve patients was more than expected. As a result, the trial protocol was amended in October 2005 to accommodate statistical endpoints for both treatment-naïve and second-line patients, thus extending the completion of the trial beyond the time we expected. Patient accrual is a function of many factors, including:

- the size of the patient population,
- the proximity of patients to clinical sites,
- the eligibility criteria for the study,
- the nature of the study,
- the existence of competitive clinical trials, and
- the availability of alternative treatments.

Our product development costs will increase if we experience delays in our clinical trials. We do not know whether planned clinical trials will begin as planned, will need to be restructured or will be completed on schedule, if at all. Significant clinical trial delays also could allow our competitors to bring products to market before we do and impair our ability to commercialize our products.

We face substantial competition which may result in others discovering, developing or commercializing drugs before or more successfully than us.

The biotechnology industry is highly competitive and characterized by rapid and significant technological change. We face, and will continue to face, intense competition from organizations such as pharmaceutical and biotechnology companies, as well as academic and research institutions and government agencies. Some of these organizations are pursuing products based on technologies similar to our technologies. Other of these organizations have developed and are marketing products, or are pursuing other technological approaches designed to produce products, that are competitive with our product candidates in the therapeutic effect these competitive products have on diseases targeted by our product candidates. Our competitors may discover, develop or commercialize products or other novel technologies that are more effective, safer or less costly than any that we are developing. Our competitors may also obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours. As examples, the FDA recently approved Sutent® and Nexavar® for use in renal cell carcinoma, which is the indication for which we are evaluating IMO-2055 monotherapy in our Phase 2 trial. Two of our competitors are currently evaluating TLR9 agonists in Phase 3 clinical trials.

Many of our competitors are substantially larger than we are and have greater capital resources, research and development staffs and facilities than we have. In addition, many of our competitors are more experienced than we are in drug discovery, development and commercialization, obtaining regulatory approvals and drug manufacturing and marketing.

We anticipate that the competition with our products and technologies will be based on a number of factors including product efficacy, safety, availability and price. The timing of market introduction of our products and competitive products will also affect competition among products. We expect the relative speed with which we can develop products, complete the clinical trials and approval processes and supply commercial quantities of the products to the market to be important competitive factors. Our competitive position will also depend upon our ability to attract and retain qualified personnel, to obtain patent protection or otherwise develop proprietary products or processes and to secure sufficient capital resources for the period between technological conception and commercial sales.

Because the products that we may develop will be based on new technologies and therapeutic approaches, the market may not be receptive to these products upon their introduction.

The commercial success of any of our products for which we may obtain marketing approval from the FDA or other regulatory authorities will depend upon their acceptance by the medical community and third-party payors as clinically useful, cost-effective and safe. Many of the products that we are developing are based upon technologies or therapeutic approaches that are relatively new and unproven. The FDA has not granted marketing approval to any products based on IMO technology or TLR9 agonists, and no such products are currently being marketed. The FDA has approved a small molecule against TLR7, which 3M Pharmaceuticals is selling under the name Aldara cream, for the treatment of genital warts, basal cell carcinoma and actinic keratosis. As a result, it may be more difficult for us to achieve regulatory approval or market acceptance of our products. Our efforts to educate the medical community on these potentially unique approaches may require greater resources than would be typically required for products based on conventional technologies or therapeutic approaches. The safety, efficacy, convenience and cost-effectiveness of our products as compared to competitive products will also affect market acceptance.

Competition for technical and management personnel is intense in our industry, and we may not be able to sustain our operations or grow if we are unable to attract and retain key personnel.

Our success is highly dependent on the retention of principal members of our technical and management staff, including Sudhir Agrawal and Robert Karr. Dr. Agrawal serves as our Chief Executive Officer and Chief Scientific Officer. Dr. Karr serves as our President. Dr. Agrawal has made significant contributions to the field of antisense technology, and has led the development of IMO Technology. He is named as an inventor on over 230 patents and patent applications worldwide. Dr. Karr has extensive experience in the pharmaceutical industry. Drs. Agrawal and Karr provide us leadership for management, research and development activities. The loss of either Dr. Agrawal's or Dr. Karr's services would be detrimental to our ongoing scientific progress and the execution of our business plan.

We are a party to an employment agreement with Dr. Agrawal for a term ending on October 19, 2008, subject to annual renewals. This agreement may be terminated by us or Dr. Agrawal for any reason or no reason at any time upon notice to the other party. We do not carry key man life insurance for Dr. Agrawal.

We are a party to an employment agreement with Dr. Karr for a term ending on December 5, 2007, subject to annual renewals. This agreement may be terminated by us or Dr. Karr for any reason or no reason at any time upon notice to the other party. We do not carry key man life insurance for Dr. Karr.

Our future growth will require hiring a significant number of qualified technical and management personnel. Recruiting and retaining such personnel in the future will be critical to our success. There is intense competition from other companies and research and academic institutions for qualified personnel in the areas of our activities. If we are not able to continue to attract and retain, on acceptable terms, the qualified personnel necessary for the continued development of our business, we may not be able to sustain our operations or grow.

Regulatory Risks

We may not be able to obtain marketing approval for products resulting from our development efforts.

All of the products that we are developing or may develop in the future will require additional research and development, extensive preclinical studies and clinical trials and regulatory approval prior to any commercial sales. This process is lengthy, often taking a number of years, is uncertain and is expensive. Since our inception, we have conducted clinical trials of a number of compounds. In 1997, we determined not to continue clinical development of GEM91, our lead product candidate at the time. Currently, we are conducting clinical trials of IMO-2055.

We may need to address a number of technological challenges in order to complete development of our products. Moreover, these products may not be effective in treating any disease or may prove to have undesirable or unintended side effects, unintended alteration of the immune system over time, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use.

We are subject to comprehensive regulatory requirements, with which compliance is costly and time-consuming; if we fail to comply with these requirements, we could be subject to adverse consequences and penalties.

The testing, manufacturing, labeling, advertising, promotion, export and marketing of our products are subject to extensive regulation by governmental authorities in Europe, the United States and elsewhere throughout the world.

In general, submission of materials requesting permission to conduct clinical trials may not result in authorization by the FDA or any equivalent foreign regulatory agency to commence clinical trials. Further, permission to continue ongoing trials may be withdrawn by the FDA or other regulatory agency at any time after initiation, based on new information available after the initial authorization to commence clinical trials. In addition, submission of an application for marketing approval to the relevant regulatory agency following completion of clinical trials may not result in the regulatory agency approving the application if applicable regulatory criteria are not satisfied, and may result in the regulatory agency requiring additional testing or information.

Any regulatory approval of a product may contain limitations on the indicated uses for which the product may be marketed or requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the product. Any product for which we obtain marketing approval, along with the facilities at which the product is manufactured, any post-approval clinical data and any advertising and promotional activities for the product will be subject to continual review and periodic inspections by the FDA and other regulatory agencies.

Both before and after approval is obtained, violations of regulatory requirements may result in:

- the regulatory agency's delay in approving, or refusal to approve, an application for approval of a product;
- restrictions on such products or the manufacturing of such products;
- withdrawal of the products from the market;
- warning letters;
- voluntary or mandatory recall;
- fines;
- suspension or withdrawal of regulatory approvals;
- product seizure;
- refusal to permit the import or export of our products;
- injunctions or the imposition of civil penalties; and
- criminal penalties.

We have only limited experience in regulatory affairs and our products are based on new technologies; these factors may affect our ability or the time we require to obtain necessary regulatory approvals.

We have only limited experience in filing the applications necessary to gain regulatory approvals. Moreover, the products that result from our research and development programs will likely be based on new technologies and new therapeutic approaches that have not been extensively tested in humans. The regulatory requirements governing these types of products may be more rigorous than for conventional drugs. As a result, we may experience a longer regulatory process in connection with obtaining regulatory approvals of any product that we develop.

Risks Relating to Collaborators

We need to establish collaborative relationships in order to succeed.

An important element of our business strategy includes entering into collaborative relationships for the development and commercialization of products based on our discoveries. We face significant competition in seeking appropriate collaborators. Moreover, these arrangements are complex to negotiate and time-consuming to document. We may not be successful in our efforts to establish collaborative relationships or other alternative arrangements.

The success of collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Our collaborators will have significant discretion in determining the efforts and resources that they will apply to these collaborations. The risks that we face in connection with these collaborations include the following:

- disputes may arise in the future with respect to the ownership of rights to technology developed with collaborators;
- disagreements with collaborators could delay or terminate the research, development or commercialization of products, or result in litigation or arbitration;
- we may have difficulty enforcing the contracts if one of our collaborators fails to perform;
- our collaborators may terminate their collaborations with us, which could make it difficult for us to attract new collaborators or adversely affect the perception of us in the business or financial communities;
- collaborators have considerable discretion in electing whether to pursue the development of any additional drugs and may pursue technologies or products either on their own or in collaboration with our competitors that are similar to or competitive with our technologies or products that are the subject of the collaboration with us; and
- our collaborators may change the focus of their development and commercialization efforts. Pharmaceutical and biotechnology companies historically have re-evaluated their priorities following mergers and consolidations, which have been common in recent years in these industries. The ability of our products to reach their potential could be limited if our collaborators decrease or fail to increase spending relating to such products.

Given these risks, it is possible that any collaborative arrangements into which we enter may not be successful. In May 2005, we entered into collaborative arrangements with Novartis involving our IMO technology for application in asthma and allergies. Previous collaborative arrangements to which we were a party with F. Hoffmann-La Roche and G.D. Searle & Co., involving our antisense technology, were terminated prior to the development of any product. The failure of any of our collaborative relationships could delay our drug development or impair commercialization of our products.

Risks Relating to Intellectual Property

If we are unable to obtain patent protection for our discoveries, the value of our technology and products will be adversely affected.

Our patent positions, and those of other drug discovery companies, are generally uncertain and involve complex legal, scientific and factual questions.

Our ability to develop and commercialize drugs depends in significant part on our ability to:

- obtain patents;
- obtain licenses to the proprietary rights of others on commercially reasonable terms;
- operate without infringing upon the proprietary rights of others;
- prevent others from infringing on our proprietary rights; and
- protect trade secrets.

We do not know whether any of our patent applications or those patent applications that we license will result in the issuance of any patents. Our issued patents and those that may issue in the future, or those licensed to us, may be challenged, invalidated or circumvented, and the rights granted thereunder may not provide us proprietary protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may

independently develop similar technologies or duplicate any technology developed by us. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that, before any of our products can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thus reducing any advantage of the patent.

Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publications of discoveries in the scientific literature often lag behind actual discoveries, neither we nor our licensors can be certain that we or they were the first to make the inventions claimed in issued patents or pending patent applications, or that we or they were the first to file for protection of the inventions set forth in these patent applications.

Third parties may own or control patents or patent applications and require us to seek licenses, which could increase our development and commercialization costs, or prevent us from developing or marketing products.

We may not have rights under some patents or patent applications related to our products. Third parties may own or control these patents and patent applications in the United States and abroad. Therefore, in some cases, to develop, manufacture, sell or import some of our products, we or our collaborators may choose to seek, or be required to seek, licenses under third-party patents issued in the United States and abroad or under patents that might issue from United States and foreign patent applications. In such an event, we would be required to pay license fees or royalties or both to the licensor. If licenses are not available to us on acceptable terms, we or our collaborators may not be able to develop, manufacture, sell or import these products.

We may lose our rights to patents, patent applications or technologies of third parties if our licenses from these third parties are terminated. In such an event, we might not be able to develop or commercialize products covered by the licenses.

We are party to seven license agreements in the field of antisense technology under which we have acquired rights to patents, patent applications and technology of third parties. Under these licenses we are obligated to pay royalties on net sales by us of products or processes covered by a valid claim of a patent or patent application licensed to us. We also are required in some cases to pay a specified percentage of any sublicense income that we may receive. These licenses impose various commercialization, sublicensing, insurance and other obligations on us. Our failure to comply with these requirements could result in termination of the licenses. These licenses generally will otherwise remain in effect until the expiration of all valid claims of the patents covered by such licenses or upon earlier termination by the parties. The issued patents covered by these licenses expire at various dates ranging from 2006 to 2022. If one or more of these licenses is terminated, we may be delayed in our efforts, or be unable, to develop and market the products that are covered by the applicable license or licenses.

We may become involved in expensive patent litigation or other proceedings, which could result in our incurring substantial costs and expenses or substantial liability for damages or require us to stop our development and commercialization efforts.

There has been substantial litigation and other proceedings regarding patent and other intellectual property rights in the biotechnology industry. We may become a party to various types of patent litigation or other proceedings regarding intellectual property rights from time to time even under circumstances in which we are not practicing and do not intend to practice any of the intellectual property involved in the proceedings. For instance, in 2002, 2003, and 2005, we became involved in interference proceedings declared by the United States Patent and Trademark Office, or USPTO, for certain of our antisense and ribozyme patents. All of these interferences have since been resolved. We are neither practicing nor intending to practice the intellectual property that is associated with any of these interference proceedings.

The cost to us of any patent litigation or other proceeding, including the interferences referred to above, even if resolved in our favor, could be substantial. Some of our competitors may be able to sustain the cost of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. If any patent

litigation or other proceeding is resolved against us, we or our collaborators may be enjoined from developing, manufacturing, selling or importing our drugs without a license from the other party and we may be held liable for significant damages. We may not be able to obtain any required license on commercially acceptable terms or at all.

Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace. Patent litigation and other proceedings may also absorb significant management time.

Risks Relating to Product Manufacturing, Marketing and Sales and Reliance on Third Parties

Because we have limited manufacturing experience, we are dependent on third-party manufacturers to manufacture products for us. If we cannot rely on third-party manufacturers, we will be required to incur significant costs and devote significant efforts to establish our own manufacturing facilities and capabilities.

We have limited manufacturing experience and no commercial scale manufacturing capabilities. In order to continue to develop our products, apply for regulatory approvals and ultimately commercialize products, we need to develop, contract for or otherwise arrange for the necessary manufacturing capabilities.

We currently rely upon third parties to produce material for preclinical and clinical testing purposes and expect to continue to do so in the future. We also expect to rely upon third parties to produce materials that may be required for the commercial production of our products.

There are a limited number of manufacturers that operate under the FDA's current good manufacturing practices regulations capable of manufacturing our products. As a result, we may have difficulty finding manufacturers for our products with adequate capacity for our needs. If we are unable to arrange for third-party manufacturing of our products on a timely basis, or to do so on commercially reasonable terms, we may not be able to complete development of our products or market them.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured products ourselves, including:

- reliance on the third party for regulatory compliance and quality assurance,
- the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control,
- the possibility of termination or nonrenewal of the agreement by the third party, based on its own business priorities, at a time that is costly or inconvenient for us,
- the potential that any such third-party manufacturer will develop know-how owned by such third party in connection with the production of our products that is necessary for the manufacture of our products, and
- reliance upon third-party manufacturers to assist us in preventing inadvertent disclosure or theft of our proprietary knowledge.

We purchased oligonucleotides for preclinical and clinical testing from Avecia Biotechnology at a preferential price under a supply agreement, which expired in March 2004. We have continued to purchase all of the oligonucleotides we are using in our ongoing clinical trials and preclinical testing from Avecia. The terms of the agreement have been extended until such time as a new agreement is negotiated. If Avecia determines not to accept any purchase order for oligonucleotides or we are unable to enter into a new manufacturing arrangement with Avecia or a new contract manufacturer on a timely basis or at all, our ability to supply the product needed for our clinical trials could be materially impaired.

We have no experience selling, marketing or distributing products and no internal capability to do so.

If we receive regulatory approval to commence commercial sales of any of our products, we will face competition with respect to commercial sales, marketing and distribution. These are areas in which we have no experience. To market any of our products directly, we would need to develop a marketing and sales force with technical expertise and with supporting distribution capability. In particular, we would need to recruit a large number of experienced marketing and sales personnel. Alternatively, we could engage a pharmaceutical or other healthcare company with an existing distribution system and direct sales force to assist us. However, to the extent we entered into such arrangements, we would be dependent on the efforts of third parties. If we are unable to establish sales and distribution capabilities, whether internally or in reliance on third parties, our business would suffer materially.

If third parties on whom we rely for clinical trials do not perform as contractually required or as we expect, we may not be able to obtain regulatory approval for or commercialize our products and our business may suffer.

We do not have the ability to independently conduct the clinical trials required to obtain regulatory approval for our products. We depend on independent clinical investigators, contract research organizations and other third-party service providers in the conduct of the clinical trials of our products and expect to continue to do so. For example, we have contracted with PAREXEL International to manage our Phase 2 clinical trial of IMO-2055 in renal cell carcinoma. We rely heavily on these parties for successful execution of our clinical trials, but do not control many aspects of their activities. We are responsible for ensuring that each of our clinical trials is conducted in accordance with the general investigational plan and protocols for the trial. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices, for conducting, recording and reporting clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Our reliance on third parties that we do not control does not relieve us of these responsibilities and requirements. Third parties may not complete activities on schedule or may not conduct our clinical trials in accordance with regulatory requirements or our stated protocols. The failure of these third parties to carry out their obligations could delay or prevent the development, approval and commercialization of our products. If we seek to conduct any of these activities ourselves in the future, we will need to recruit appropriately trained personnel and add to our infrastructure.

If we are unable to obtain adequate reimbursement from third-party payors for any products that we may develop or acceptable prices for those products, our revenues and prospects for profitability will suffer.

Most patients will rely on Medicare and Medicaid, private health insurers and other third-party payors to pay for their medical needs, including any drugs we may market. If third-party payors do not provide adequate coverage or reimbursement for any products that we may develop, our revenues and prospects for profitability will suffer. Congress recently enacted a limited prescription drug benefit for Medicare recipients in the Medicare Prescription Drug and Modernization Act of 2003. While the program established by this statute may increase demand for our products, if we participate in this program, our prices will be negotiated with drug procurement organizations for Medicare beneficiaries and are likely to be lower than we might otherwise obtain. Non-Medicare third-party drug procurement organizations may also base the price they are willing to pay on the rate paid by drug procurement organizations for Medicare beneficiaries.

A primary trend in the United States healthcare industry is toward cost containment. In addition, in some foreign countries, particularly the countries of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take six to twelve months or longer after the receipt of regulatory marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost effectiveness of our product candidates or products to other available therapies. The conduct of such a clinical trial could be expensive and result in delays in commercialization of our products.

Third-party payors are challenging the prices charged for medical products and services, and many third-party payors limit reimbursement for newly-approved healthcare products. In particular, third-party payors may limit the indications for which they will reimburse patients who use any products that we may develop. Cost control initiatives could decrease the price we might establish for products that we may develop, which would result in lower product revenues to us.

We face a risk of product liability claims and may not be able to obtain insurance.

Our business exposes us to the risk of product liability claims that is inherent in the manufacturing, testing and marketing of human therapeutic drugs. Although we have product liability and clinical trial liability insurance that we believe is adequate, this insurance is subject to deductibles and coverage limitations. We may not be able to obtain or maintain adequate protection against potential liabilities. If we are unable to obtain insurance at acceptable cost or otherwise protect against potential product liability claims, we will be exposed to significant liabilities, which may materially and adversely affect our business and financial position. These liabilities could prevent or interfere with our commercialization efforts.

Risks Relating to an Investment in Our Common Stock

Our corporate governance structure, including provisions in our certificate of incorporation, our by-laws, our stockholder rights plan and Delaware law, may prevent a change in control or management that stockholders may consider desirable.

Section 203 of the Delaware General Corporation Law and our certificate of incorporation, by-laws and stockholder rights plan contain provisions that might enable our management to resist a takeover of our company or discourage a third party from attempting to take over our company. These provisions include:

- a classified board of directors;
- limitations on the removal of directors;
- limitations on stockholder proposals at meetings of stockholders;
- the inability of stockholders to act by written consent or to call special meetings; and
- the ability of our board of directors to designate the terms of and issue new series of preferred stock without stockholder approval.

These provisions could have the effect of delaying, deferring, or preventing a change in control of us or a change in our management that stockholders may consider favorable or beneficial. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors and take other corporate actions. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock.

Our stock price has been and may in the future be extremely volatile. In addition, because an active trading market for our common stock has not developed, our investors' ability to trade our common stock may be limited. As a result, investors may lose all or a significant portion of their investment.

Our stock price has been volatile. During the period from January 1, 2003 to May 1, 2006, the closing sales price of our common stock ranged from a high of $1.69 per share to a low of $0.41 per share. The stock market has also experienced significant price and volume fluctuations, and the market prices of biotechnology companies in particular have been highly volatile, often for reasons that have been unrelated to the operating performance of particular companies. The market price for our common stock may be influenced by many factors, including:

- results of clinical trials of our product candidates or those of our competitors;
- the regulatory status of our product candidates;
- failure of any of our product candidates, if approved, to achieve commercial success;
- the success of competitive products or technologies;
- regulatory developments in the United States and foreign countries;
- developments or disputes concerning patents or other proprietary rights;
- the departure of key personnel;
- variations in our financial results or those of companies that are perceived to be similar to us;
- our cash resources;
- the terms of any financing conducted by us;
- changes in the structure of healthcare payment systems;
- market conditions in the pharmaceutical and biotechnology sectors and issuance of new or changed securities analysts' reports or recommendations; and
- general economic, industry and market conditions.

In addition, our common stock has historically been traded at low volume levels and may continue to trade at low volume levels. As a result, any large purchase or sale of our common stock could have a significant impact on the price of our common stock and it may be difficult for investors to sell our common stock in the market without depressing the market price for the common stock or at all.

As a result of the foregoing, investors may not be able to resell their shares at or above the price they paid for such shares. Investors in our common stock must be willing to bear the risk of fluctuations in the price of our common stock and the risk that the value of their investment in our stock could decline.

We may be unable to repay our 4% convertible subordinated notes when due or to repurchase the convertible subordinated notes if we are required to do so under the terms of our agreement with the holders of the 4% convertible subordinated notes.

In May 2005, we sold approximately $5.0 million in principal amount of 4% convertible subordinated notes. On April 30, 2008, the entire outstanding principal amount of our 4% convertible subordinated notes will become due and payable, unless the notes are converted to common stock prior to expiration. In addition, we may be required to redeem all or part of the convertible subordinated notes prior to the final maturity date if specified events occur. We may not have sufficient funds or may be unable to arrange for additional financing to pay the amount due under the convertible subordinated notes at maturity or to pay the price to repurchase the convertible subordinated notes. Any future borrowing arrangements or debt agreements to which we may become a party may restrict or prohibit us from repaying or repurchasing the convertible subordinated notes. If we are prohibited from repaying or repurchasing the convertible subordinated notes, we could try to obtain the consent of lenders under those arrangements, or we could attempt to refinance the indebtedness that contains the restrictions. If we could not obtain the necessary consents or refinance the indebtedness, we would be unable to repay or repurchase the convertible subordinated notes. Any such failure would constitute an event of default under the agreement with the holders of the 4% convertible subordinated notes, which could, in turn, constitute a default under the terms of any future indebtedness.

ITEM 6. EXHIBITS.

The list of Exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index immediately preceding such Exhibits, and is incorporated herein by this reference.

SIGNATURES

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

IDERA PHARMACEUTICALS, INC

Date: May 12, 2006

/s/ Sudhir Agrawal

Sudhir Agrawal
Chief Executive Officer, Chief Scientific Officer and Director
(Principal Executive Officer)

Date: May 12, 2006

/s/ Robert G. Andersen

Robert G. Andersen
Chief Financial Officer and Vice President of Operations
(Principal Financial and Accounting Officer)

Exhibit Index

Exhibit No.	
10.1	Employment agreement dated April 13, 2006 between Idera Pharmaceuticals, Inc. and Robert G. Andersen.
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14 and 15d-14, as adopted pursuant to Section 302 of Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

Exhibit 10.1

IDERA PHARMACEUTICALS, INC.

EMPLOYMENT AGREEMENT

THIS EMPLOYMENT AGREEMENT (this "Agreement") is entered into by and between Robert G. Andersen ("Executive") and Idera Pharmaceuticals, Inc., a Delaware corporation (the "Company"), and is effective as of the 13th day of April 2006 (the "Effective Date"). Executive and the Company are referred to herein individually as a "Party", and collectively as the "Parties".

WHEREAS, the Company and Executive are a party to an Employment Agreement dated April 1, 2002 (the "Original Employment Agreement");

WHEREAS, the Company and Executive desire to enter into this Agreement, as an amendment and restatement of the Original Employment Agreement and to terminate the Original Employment Agreement, effective as of the Effective Date.

NOW, THEREFORE, in consideration of the mutual agreements hereinafter set forth, Executive and the Company have agreed and do hereby agree as follows:

1. Definitions. The capitalized terms in this Agreement shall have the meanings set forth in this Agreement or Appendix A attached hereto.

2. Engagement. The Company hereby agrees to employ Executive as its Chief Financial Officer and Vice President of Operations, and Executive hereby accepts such employment on the terms and conditions hereinafter set forth.

3. Employment Period. Executive's employment with the Company under this Agreement shall commence on the Effective Date and shall continue until the second anniversary of the Effective Date (as such period may be extended as set forth below, the "Employment Period"), unless such employment is sooner terminated as hereinafter provided. The Employment Period shall automatically be extended for an additional year on the second anniversary of the Effective Date and on each anniversary of the Effective Date thereafter; provided however, that the Employment Period shall not be extended if at least ninety (90) days prior to the last day of the then-current Employment Period either Party provides written notice to the other Party that the then-current Employment Period shall not be extended (a "Non-Renewal Notice").

4. Duties and Responsibilities.

(a) Responsibilities. During the Employment Period, Executive shall perform his duties and responsibilities fully and faithfully as Chief Financial Officer and Vice President of Operations, subject to the direction and supervision of the Chief Executive Officer (the "CEO") and the terms and conditions of this Agreement. During such period, Executive shall report solely to the CEO. Executive shall have the duties and responsibilities customarily assigned to the chief financial officer and vice president of operations of a company with such other duties not inconsistent therewith as may from time to time be assigned to Executive by the CEO. Such duties shall include, without limitation, the management of the Company's financial affairs, operations and human resources, provided that the CEO shall have discretion to re-assign the human resources function. During the Employment Period, the Executive shall perform all services and acts necessary or advisable to fulfill the duties and responsibilities that are commensurate and consistent with the Executive's position. Executive agrees he shall devote substantially his full business time and attention to, and exert his best efforts in, the performance of his duties hereunder, so as to promote the business and best interests of the Company and to comply with the Company's policies as in effect from time to time. Notwithstanding the foregoing, the Company agrees that Executive may participate on the boards of directors of other companies, provided that the total number of boards of directors of which he is a member does not exceed two and that the Chief Executive Officer and the Chairman of the Board (or if the Chairman of the Board is the Chief Executive Officer, the Chairman of the Compensation Committee (as defined below)) mutually agree in advance.

(b) Location. Executive's principal place of business shall be in Cambridge, Massachusetts, within 30 miles of Cambridge, Massachusetts or within 10 miles east of Worcester, Massachusetts (the "Permitted Area"). Notwithstanding the foregoing, Executive shall perform services for the Company

at such other locations where Executive's services might be required to be performed from time to time, provided that Executive shall not be required to perform services at a location other than in the Permitted Area for a period in excess of 30 consecutive days without Executive's prior written consent, except in the event of a change in location of the headquarters of the Company to a site within the continental United States following a Change of Control.

5. Compensation. For all services rendered by Executive pursuant to this Agreement, the Company shall pay Executive, and Executive agrees to accept, the salary, bonuses and other benefits described below in this Section 5.

(a) Base Salary. During the Employment Period, the Company shall pay Executive an annual base salary of $313,500 ("Base Salary") and such Base Salary shall be payable at periodic intervals in accordance with the Company's payroll practices for salaried employees. In accordance with Section 5(c) below, the amount of Base Salary shall be reviewed and approved, if applicable, by the Board of Directors of the Company (the "Board") or the Compensation Committee of the Board (the "Compensation Committee") (it being agreed that, for purposes of this Agreement, any action that may be taken by the Board under this Agreement may be taken by the Compensation Committee instead of the Board, whether or not expressly provided in this Agreement) on at least an annual basis, and any increases in the amount of Base Salary shall be effective as of the date determined by the Board or the Compensation Committee. Executive's Base Salary may be increased for any reason, including to reflect inflation or such other adjustments as the Board or the Compensation Committee may deem appropriate; provided, however, that Executive's Base Salary, as in effect on the date hereof or as increased in accordance with the terms of this Agreement, may not be subsequently decreased, except with the prior written consent of Executive.

(b) Bonus. In addition to Base Salary and stock options, and to the extent a bonus program is established by the Board, Executive shall be eligible to receive, for each fiscal year of the Company ending with or within the Employment Period, an annual bonus ("Bonus"), whether pursuant to a formal bonus or incentive plan or program of the Company or otherwise; provided, however, that with respect to the fiscal year ending December 31, 2006, Executive shall be eligible to receive a Bonus equal to between 10% and 50% of the Executive's Base Salary on the last day of such fiscal year. Subject to this Section 5(b) and Section 5(c) below, such Bonus shall be based on criteria, and subject to the achievement of milestones, determined by the Board or the Compensation Committee, in its discretion. Any Bonus earned by Executive for service or performance rendered in any fiscal year within the Employment Period shall be paid to Executive in accordance with the applicable plan or program, if any, and the Company's policies governing such matters.

(c) Annual Compensation Review. Executive's compensation, consisting of salary, equity incentive awards and bonuses, shall be reviewed annually by the Board or the Compensation Committee.

(d) Medical, Dental and Other Healthcare Benefits. During the Employment Period, Executive shall be eligible to participate in and receive benefits under the Company's medical, dental or other healthcare plans, as in effect from time to time, that are available to officers and employees of the Company.

(e) Retirement Plan Benefits. Executive shall be entitled to participate in the Company's tax-qualified and nonqualified retirement plans, as in effect from time to time, that are available to officers and employees of the Company and shall be entitled to receive the benefit of contributions to be made, if any, by the Company for the benefit of Executive under the terms of the applicable tax-qualified or nonqualified retirement plan.

(f) Incentive Plans. During the Employment Period, Executive shall be eligible to receive all benefits, including those under stock option, equity participation or bonus programs, to which key employees are or become eligible under such plans or programs as may be established by the Company from time to time.

(g) Other Benefits. During the Employment Period, in addition to the benefit plans contemplated by Sections 5(d), 5(e) and 5(f), Executive shall be entitled to participate in the other benefit and fringe benefit programs afforded by the Company to its executives from time to time. Executive shall be entitled to paid vacation in accordance with the Company's standard vacation policies in effect from time to time.

6. Termination of Employment. The remedies described in this Section 6 are the exclusive remedies of the Executive in connection with the termination of Executive's employment under this Agreement.

(a) Death. If Executive's employment hereunder is terminated by reason of Executive's death, the Company shall pay Executive's designated beneficiary or beneficiaries any Unpaid Obligations; provided that such amounts shall be paid in a lump sum cash payment within 30 days after the Company's receipt of notification of Executive's death. Additionally, any stock options or other equity incentive awards previously granted to Executive by the Company and held by Executive on the date of his death shall vest as of such date to the extent such options or equity incentive awards, as applicable, would have vested had Executive continued to be an employee of the Company for a period ending on the earlier of (i) the final day of the Employment Period in effect immediately prior to Executive's death and (ii) the first anniversary of Executive's death. Executive's designated beneficiary or beneficiaries shall be permitted to exercise such stock options until the first anniversary of Executive's death; provided that such provision shall not affect and shall be subject to (x) the provisions of the applicable stock option agreement and/or equity incentive plan relating to the termination of such stock options in connection with an Acquisition Event, a Change of Control or a similar transaction involving the Company or (y) the maximum term of any such stock option (the "Option Limitation Provisions").

(b) Disability. The Company may terminate Executive's employment at any time upon at least 30 days' prior written notice due to the Disability of Executive. If Executive's employment hereunder is terminated due to Disability, the Company shall pay Executive any Unpaid Obligations; provided that such amounts shall be paid in a lump sum cash payment within 30 days after the termination date. Additionally, any stock options or other equity incentive awards previously granted to Executive by the Company and held by Executive on the termination date shall vest as of such date to the extent such options or equity incentive awards, as applicable, would have vested had Executive continued to be an employee of the Company for a period ending on the earlier of (i) the final day of the Employment Period in effect immediately prior to the termination date and (ii) the first anniversary of such termination date. Executive shall be permitted to exercise such stock options until the first anniversary of the termination date; provided that such provision shall not affect and shall be subject to the Option Limitation Provisions.

(c) Termination by the Company for Cause. The Company may terminate Executive's employment under this Agreement for Cause at any time. If Executive's employment hereunder is terminated by the Company for Cause, the Company shall pay Executive any Unpaid Obligations, provided that such amounts shall be paid in a lump sum cash payment within 30 days after such termination date. All options or other equity incentive awards, whether vested or unvested on the termination date, shall expire and terminate on that date.

(d) Termination by the Company Other than for Death, Disability or Cause. The Company may, at its option and upon 30 days' prior written notice, terminate Executive's employment under this Agreement without Cause at any time. If Executive's employment is terminated by the Company under this Section 6(d) or is terminated by the Company upon the expiration of this Agreement following a Non-Renewal Notice by the Company, then the Company shall pay Executive any Unpaid Obligations; provided that such amounts shall be paid in a lump sum cash payment within 30 days after the termination date. In addition, subject to Section 6(h)(i) below, the Company shall pay Executive (i) on the date six months and one day after the termination date a lump sum payment in cash equal to six months of Executive's Base Salary as in effect immediately prior to such termination and (ii) in accordance with the Company's payroll practices applicable to salaried executives, Executive's Base Salary as in effect immediately prior to such termination for a period commencing on the date six months and one day after the termination date and ending on the first anniversary of the termination date. Additionally, any stock options or other equity incentive awards previously granted to Executive by the Company and held

by Executive on the termination date shall vest as of such date to the

extent such options or equity incentive awards, as applicable, would have vested had Executive continued to be an employee of the Company for a period ending on the first anniversary of the termination date. Executive shall be permitted to exercise such stock options until the first anniversary of the termination date; provided that such provision shall not affect and shall be subject to the Option Limitation Provisions.

(e) Termination by Executive for Good Reason. Executive may, for Good Reason, terminate this Agreement upon 30 days' prior written notice to the Company. If Executive's employment is terminated by Executive for Good Reason, the Company shall pay Executive any Unpaid Obligations; provided that such amounts shall be paid in a lump sum cash payment within 30 days after the termination date. In addition, subject to Section 6(h)(i) below, the Company shall pay Executive (i) on the date six months and one day after the termination date a lump sum payment in cash equal to six months of Executive's Base Salary as in effect immediately prior to such termination and (ii) in accordance with the Company's payroll practices applicable to salaried executives, Executive's Base Salary in effect immediately prior to such termination for a period commencing on the date six months and one day after the termination date and ending on the first anniversary of the termination date. Additionally, any stock options or other equity incentive awards previously granted to Executive by the Company and held by Executive on the termination date shall vest as of such date to the extent such options or equity incentive awards, as applicable, would have vested had Executive continued to be an employee of the Company for a period ending on the first anniversary of the termination date. Executive shall be permitted to exercise such stock options until the first anniversary of the termination date; provided that such provision shall not affect and shall be subject to the Option Limitation Provisions.

(f) Voluntary Termination by Executive. Executive may, without Good Reason, terminate Executive's employment upon 30 days' prior written notice to the Company. If Executive's employment is terminated by Executive without Good Reason, the Company shall pay Executive any Unpaid Obligations, provided that such amounts shall be paid in a lump sum cash payment within 30 days after such termination date. All options that remain unvested on such termination date shall expire and terminate as of that date. Executive shall be permitted to exercise vested stock options until the first anniversary of the termination date; provided that such provision shall not affect and shall be subject to the Option Limitation Provisions.

(g) No Offset. Any compensation derived by Executive from any subsequent employment or self-employment shall not be offset against or reduce any amounts to which Executive is entitled under this Agreement.

(h) Change of Control.

(i) Continuation of Salary. If Executive's employment with the Company is terminated by Executive for Good Reason, by the Company under Section 6(d) or by the Company upon the expiration of this Agreement following a Non-Renewal Notice by the Company, in each case in connection with, or within one year after the effective date of, a Change of Control, then in lieu of the severance payments provided for in the third sentence of Section 6(d) or the third sentence of Section 6(e), as applicable, the Company shall pay Executive a lump sum cash payment in an amount equal to Executive's Base Salary. Such amounts shall be paid to Executive within 10 days after the termination date.

(ii) Parachute Payments. If all or any portion of the amounts payable to Executive under this Agreement or otherwise are subject to the excise tax imposed by Section 4999 of the Internal Revenue Code of 1986, as amended or a similar state tax or assessment, the Company shall pay to Executive an amount necessary to place Executive in the same after-tax position as Executive would have been had no such excise tax or assessment been imposed. The amount payable pursuant to the preceding sentence shall be increased to the extent necessary to pay income and excise taxes on such amounts. The determination of any amounts payable under this Section 6(h)(ii) shall be made by an independent accounting firm employed by the Company and such determination shall be final, binding and conclusive on the Parties.

(iii) Acceleration of Vesting. Any provisions of this Agreement regarding vesting of stock options notwithstanding, the vesting of all stock options held by Executive shall be accelerated in full and such stock options shall become fully exercisable upon the consummation of a Change of Control.

(i) Continuation of Benefits. If Executive's employment with the Company is terminated pursuant to Section 6(d) or 6(e) (irrespective of whether such termination follows a Change of Control), the Company shall provide, for the period ending on the earlier of (i) the final day of the Employment Period in effect immediately prior to such termination and (ii) the first anniversary of the termination date, and at its sole cost and expense, Executive and his eligible dependents (if any) with healthcare, disability, and life insurance benefits substantially similar to those benefits Executive and his eligible dependents (if any) were receiving immediately prior to the termination date; provided, however, that

(A) the Company shall not be required to provide medical coverage to the extent another employer of the Executive provides comparable coverage,

(B) with respect to death and disability coverage, the Company shall not be required to provide coverage to the extent another employer of Executive provides comparable coverage; and shall pay the cost of supplemental coverage if a new employer provides less than comparable coverage, to allow Executive to purchase coverage to make total coverage comparable, and

(C) the coverage provided by the Company pursuant to this Section 6(i) shall be in lieu of any other continued coverage for which Executive or his dependents, if any, would otherwise be eligible pursuant to COBRA.

7. Proprietary Information; Company Documents and Materials.

(a) Proprietary Information. Executive acknowledges that during his employment with the Company, Executive has occupied and will occupy a position of trust and confidence with respect to Proprietary Information of the Company. Executive understands that he possesses or will possess Proprietary Information that is important to the Company's business and operation. Executive acknowledges that such Proprietary Information is specialized, unique in nature and of great value to the Company and its Affiliates, and that such information gives the Company and its Affiliates a competitive advantage. Executive acknowledges that all Proprietary Information is and shall remain the sole property of the Company or any of its Affiliates. Executive shall not disclose to others or use, whether directly or indirectly, any Proprietary Information, or anything relating to such information, regarding the Company or any of its Affiliates except in performing the duties of Executive's employment; provided, however that Executive's obligations under this Section 7 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by Executive of the terms of this Section 7, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, (iii) is approved for release by written authorization of the Board or an authorized employee of the Company, (iv) is communicated to Executive by a third party under no duty of confidentiality with respect to such information to the Company or another party, or (v) is required to be disclosed by Executive to comply with applicable laws, governmental regulations, or court order, provided that Executive provides prior written notice of such disclosure to the Company and an opportunity for the Company to object to such disclosure and further provided that Executive cooperates with the Company and takes reasonable and lawful actions requested by the Company (the out-of-pocket costs of which shall be paid by the Company) to avoid and/or minimize the extent of such disclosure.

(b) Company Documents and Materials. Executive agrees that during Executive's employment by the Company, Executive will not

remove any Company documents or materials, including Proprietary Information,

from the business premises of the Company or deliver any such Company documents or materials to any person or entity outside the Company, except as Executive is required to do in connection with performing the duties of Executive's employment. Executive agrees that, immediately upon the termination of Executive's employment by Executive or by the Company for any reason, or during Executive's employment if so requested by the Company, Executive will return all Company documents and materials, computer tapes and disks, records, lists, data, drawings, prints, notes and written information, apparatus, equipment and other physical property, or any reproduction of such property, excepting only (i) Executive's personal copies of records relating to Executive's compensation; (ii) Executive's personal copies of any materials previously distributed generally to stockholders of the Company; and (iii) Executive's copy of this Agreement.

8. Non-solicitation and Non-competition.

(a) Non-solicitation. Executive agrees that during his employment with the Company and for a period of one year following the termination of his employment with the Company, Executive shall not hire, attempt to hire, or assist in or facilitate in any way the hiring of any person who, at the time of any such action by Executive, is an employee of the Company (or any of its Affiliates).

(b) Non-competition. Executive agrees that if his employment with the Company is terminated for any reason, including upon the expiration of the Employment Period, for a period of one year from the date of such termination of employment, Executive shall not, directly or indirectly, engage in any business or enterprise (whether as owner, partner, officer, director, employee, consultant, investor, lender or otherwise, except as the holder of not more than 1% of the outstanding stock of a publicly-held company) that develops, manufactures, markets, licenses or sells any products developed using antisense therapeutics or oligonucleotide-based immunostimulatory therapeutics or any other technology or product developed, manufactured, marketed, licensed or sold by the Company while the Executive is employed by the Company (the "Restricted Business").

(c) Notwithstanding the foregoing, Section 8(b) shall not preclude Executive from becoming an employee of, or from otherwise providing services to, a separate division or operating unit of a multi-divisional pharmaceutical business or enterprise (a "Division") if: (i) the Division by which Executive is employed, or to which the Employee provides services, is not competitive with the Restricted Business, (ii) Executive does not provide services, directly or indirectly, to any other division or operating unit of such multi-divisional pharmaceutical business or enterprise that is

competitive with the Restricted Business (individually, a "Competitive Division" and collectively, the "Competitive Divisions") and (iii) the Competitive Divisions, in the aggregate, accounted for less than one-third of the multi-divisional pharmaceutical business or enterprises' consolidated revenues for the fiscal year, and each subsequent quarterly period, prior to the Executive's commencement of employment with the Division.

9. Assignment of Rights. All inventions, discoveries, computer programs, data, technology, designs, innovations and improvements (whether or not patentable and whether or not copyrightable) related to the business of the Company that are or have been made, conceived, reduced to practice, created, written, designed or developed by Executive, solely or jointly with others and whether during normal business hours or otherwise, during his employment by the Company pursuant to this Agreement ("Inventions") shall be the sole property of the Company. Executive hereby assigns to the Company all such Inventions and any and all related patents, copyrights, trademarks, trade names, and other industrial and intellectual property rights and applications therefor, in the United States and elsewhere and appoints any officer of the Company as his duly authorized attorney, but without any out-of-pocket expenses to Executive, to execute, file, prosecute and protect the same before any government agency, court or authority. Executive hereby waives all claims to moral rights in any Invention. Upon the request of the Company and at the Company's expense, Executive shall execute such further assignments, documents and other instruments as may be necessary or desirable to fully and completely assign all such Inventions to the Company and to assist the Company in applying for, obtaining and enforcing patents or copyrights or other rights in the United

States and in any foreign country with respect to any such Invention. Executive shall promptly disclose to the Company all such Inventions and will maintain adequate and current written records (in the form of notes, sketches, drawings and as may be reasonably specified by the Company) to document the conception and/or first actual reduction to practice of any such Invention. Such written records shall be available to and remain the sole property of the Company at all times. Executive shall, upon the Company's request, whether during or after the Employment Period, promptly execute and deliver to the Company all such assignments, certificates and instruments, and shall promptly perform such other acts, as the Company may from time to time in its discretion deem necessary or desirable to evidence, establish, maintain, perfect, enforce or defend the Company's rights in the inventions. These services (the "IP Services"), shall be rendered by Executive without additional compensation during the Employment Period, and at any time when the Company is paying Executive his Base Salary pursuant to Section 6(b), 6(d), 6(e), 6(f) or 6(h). Executive shall otherwise render the IP Services at the rate of compensation provided in the last sentence of this paragraph. In addition, Executive agrees, from time to time, and for as long as reasonably required,

to make himself available on a consulting basis to assist the Company in the prosecution of patent applications or other filings or proceedings before the Office of Patents and Trademarks and to advise with respect to issues arising in the licensing of the Company's patents and the pursuit or defense of infringement claims. The Company's requests under the preceding sentence shall be made upon reasonable notice to Executive, and the Company shall pay Executive for such services at the rate of $300 per hour plus reasonable expenses.

10. Successors. Any successor to the Company (whether direct or indirect and whether by purchase, lease, merger, consolidation, liquidation or otherwise) or to all or substantially all of the Company's business and/or assets shall assume the obligations under this Agreement and shall perform the obligations under this Agreement in the same manner and to the same extent as the Company would be required to perform such obligations in the absence of a succession. The Company may assign this Agreement without Executive's consent to any company that acquires all or substantially all of the Company's stock or assets. Executive may not assign this Agreement and no person other than Executive (or his estate) may assert Executive's rights under this Agreement.

11. Notice. All notices, requests, consents and other communications hereunder to any Party shall be contained in a written instrument addressed to such Party at the address set forth below or such other address as may hereafter be designated in writing by the addressee to the addressor listing all Parties and shall be deemed given (a) when delivered in person or duly sent by fax showing confirmation of receipt, (b) three days after being duly sent by first class mail postage prepaid, or (c) two days after being duly sent by DHL, Federal Express or other recognized express courier service:

(a) if to the Company, to:

Idera Pharmaceuticals, Inc.
345 Vassar Street
Cambridge, MA 02139
fax: (617) 679-5582

(b) if to Executive, to:

Robert G. Andersen
29 Maplewood Circle
Concord, MA 01742
fax: (978) 369-5965

12. Company Plans. To the extent any provision of this Agreement conflicts with or is inconsistent with any awards made to Executive under any Company compensation or benefit plan, program, or arrangement, including without limitation any option agreement under the Company's stock incentive plans, the provisions of this Agreement shall govern. Except to the extent otherwise explicitly provided by this Agreement, any awards made to Executive under any

Company compensation or benefit plan, program, or arrangement shall be governed by the terms of that plan, program, or arrangement and any applicable award agreement thereunder, as in effect from time to time.

13. Miscellaneous Provisions.

(a) Entire Agreement. This Agreement constitutes the entire agreement between the Parties and terminates and supersedes any and all prior agreements and understandings (whether written or oral) between the Parties with respect to the subject matter of this Agreement, including without limitation the Original Employment Agreement; provided that (i) the Parties acknowledge that Executive has served as an employee of the Company since 1996 and (ii) the Employee hereby agrees that any Proprietary Information disclosed to him or of which he otherwise became aware during the course of his employment with the Company shall be deemed Proprietary Information for all purposes under this Agreement, that any Inventions made, conceived, reduced to practice, created, written, designed or developed by the Executive in the course of his employment with the Company shall be deemed Inventions for all purposes under this Agreement and that notwithstanding any prior agreements the provisions of this Agreement shall govern such Proprietary Information and Inventions. Executive acknowledges and agrees that neither the Company, nor anyone acting on its behalf has made, and in executing this Agreement Executive has not relied upon, any representations, promises, or inducements except to the extent the same is expressly set forth herein.

(b) Waiver. No provision of this Agreement shall be modified, waived, or discharged unless the modification, waiver, or discharge is agreed to in writing and signed by Executive and by an authorized officer or representative of the Company (other than Executive). No waiver by either Party of any breach of, or of compliance with, any condition or provision of this Agreement by the other Party shall be considered a waiver of any other condition or provision or of the same condition or provision at a preceding or subsequent time.

(c) Capacity. Executive represents and warrants to the Company that he is not now under any obligation, of a contractual nature or otherwise, to any person, firm, corporation, association or other entity that is inconsistent, or in conflict, with this Agreement or that would prevent, limit

or impair in any way the performance by Executive of his obligations hereunder.

(d) Consulting. Executive and the Company may, but are not required to, enter into an agreement pursuant to which Executive will provide consulting services to the Company after the date of Executive's retirement or termination of employment with the Company. Any consulting fees paid to Executive will be in addition to any retirement or severance payments Executive is entitled to receive from the Company or under any plans, programs, or arrangements maintained by the Company.

(e) Severability. In the event that a court of competent jurisdiction determines that any portion of this Agreement is in violation of any law or public policy, only the portion of this Agreement that violates such law or public policy shall be stricken. All portions of this Agreement that do not violate any statute or public policy shall continue in full force and effect. Further, any court order striking any portion of this Agreement shall modify the stricken terms as narrowly as possible to give effect to the intentions of the Parties to this Agreement, as expressed herein.

(f) Survival of Provisions. The obligations contained in Sections 7, 8 and 9 above shall survive the termination or expiration of the Employment Period or this Agreement, as applicable, and shall be fully enforceable thereafter in accordance with the terms of this Agreement.

(g) Withholding. Executive acknowledges that salary and all other compensation payable under this Agreement shall be subject to withholding for income and other applicable taxes to the extent required by law, as determined by the Company in its sole discretion.

(h) Headings. The headings or other captions contained in this Agreement are for convenience of reference only and shall not be used in interpreting, construing or enforcing any of the provisions of this Agreement.

(i) Governing Law. This Agreement shall be governed by the laws of the Commonwealth of Massachusetts without giving effect to any conflict of law rules that would require the application of the laws of any jurisdiction other than the internal laws of the Commonwealth of Massachusetts to the rights and duties of the Parties, except to the extent the laws of the Commonwealth of Massachusetts are preempted by federal law.

(j) Legal Fees. The Company shall pay or reimburse to Executive an amount equal to reasonable fees for legal representation incurred by Executive in connection with the preparation of this Agreement; provided, however, that the Company shall not be obligated and shall not pay or reimburse to Executive an amount that exceeds $3,000 in the aggregate.

(k) Terms. Where appropriate in this Agreement, words used in the singular shall include the plural, and words used in the masculine shall include the feminine or neuter.

(l) Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed to be an original, and all of which together shall constitute one agreement binding on the Parties hereto.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement effective as of the date first mentioned above.

IDERA PHARMACEUTICALS, INC.	ROBERT G. ANDERSEN
BY: /s/ SUDHIR AGRAWAL Sudhir Agrawal	/s/ ROBERT G. ANDERSEN
TITLE: Chief Executive Officer	
DATE: APRIL 13, 2006	DATE: APRIL 13, 2006

APPENDIX A

DEFINITIONS

ACQUISITION EVENT means

(i) any merger or consolidation that results in the voting securities of the Company outstanding immediately prior thereto representing (either by remaining outstanding or by being converted into voting securities of the surviving or acquiring entity) less than 60% of the combined voting power of the voting securities of the Company or such surviving or acquiring entity outstanding immediately after such merger or consolidation;

(ii) any sale of all or substantially all of the assets of the Company;

(iii) the complete liquidation of the Company; or

(iv) the acquisition of "beneficial ownership" (as defined in Rule 13d-3 under the Exchange Act) of securities of the Company representing 50% or more of the combined voting power of the Company's then outstanding securities (other than through a merger or consolidation or an acquisition of securities directly from the Company) by any "person," as such term is used in Sections 13(d) and 14(d) of the Exchange Act, other than the Company, any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportion as their ownership of stock of the

Company.

AFFILIATE. "Affiliate" shall mean any person or entity that directly or indirectly controls, is controlled by or is under common control with the Company, including any entity directly or indirectly controlled by the Company through the Company's ownership of 50% or more of the voting interests of such entity.

CAUSE. "Cause" shall mean Executive's (i) material breach of any material term of this Agreement, (ii) plea of guilty or nolo contendere to, or conviction of, the commission of a felony offense, (iii) repeated unexplained or unjustified absence, or refusals to carry out the lawful directions of the Board or (iv) material breach of a fiduciary duty owed to the Company under this Agreement, provided that any action or inaction described by (i), (iii) or (iv), above, shall not be the basis of a termination of Executive's employment with the Company for "Cause" unless the Company provided Executive with at least 20 days advance written notice specifying in reasonable detail the

conduct in need of being cured and such conduct was not cured within the notice period.

CHANGE OF CONTROL. "Change of Control" shall mean the occurrence of any of the following events:

(i) a change in the composition of the Board over a period of thirty-six consecutive months or less such that a majority of the members of the Board ceases to be comprised of individuals who are Continuing Members; for such purpose, a "Continuing Member" shall mean an individual who is a member of the Board on the date of this Agreement and any successor of a Continuing Member who is elected to the Board or nominated for election by action of a majority of Continuing Members then serving on the Board; or

(ii) the consummation of an Acquisition Event.

DISABILITY. "Disability" shall mean the inability of Executive to perform all the material duties of Executive's position for a continuous period of at least 90 days due to a permanent physical or mental impairment, as determined and certified by a physician selected by Executive and with the concurrence of a physician selected by the Company, provided that if the physician selected by Executive and the physician selected by the Company do not agree regarding the determination and certification, a determination and certification rendered by an independent physician mutually agreed upon by Executive and the Company shall be final and binding on the Parties with respect to this Agreement.

GOOD REASON. "Good Reason" shall mean the occurrence of one or more of the following: (i) any action by the Company that results in a material diminution of Executive's position, title, annual base salary, authority, duties or responsibilities or reporting structure; (ii) any material breach of this Agreement by the Company that is not remedied by the Company within 30 days after receipt by the Company of notice thereof given by Executive specifying in reasonable detail the alleged breach; or (iii) relocation of the Company's headquarters outside the Permitted Area, except in the event of a change in the location of the headquarters of the Company to a site within the continental United States following a Change of Control.

PROPRIETARY INFORMATION. "Proprietary Information" shall mean information that was developed, created, or discovered by or on behalf of the Company, or that became or will become known by, or was or is conveyed to the Company; including, but not limited to, trade secrets, designs, technology, know-how, processes, data, ideas, techniques, inventions (whether patentable or not), works of authorship, formulae, business and development plans, client or customer lists, software programs and subroutines, source and object code, algorithms, terms of compensation and performance levels of Company

employees, information about the Company or any of its Affiliates, and their clients and customers that is not disclosed by the Company or any of its Affiliates for financial reporting purposes and that was learned by Executive in the course of employment by the Company or any of its Affiliates, other information concerning the Company's actual or anticipated business, research or

development, or that is received in confidence by or for the Company from any other person, and all papers, resumes, and records (including electronic or computer-generated records) of the documents containing such Proprietary Information. Proprietary Information shall not include information that is publicly available or available through third party sources so long as it has not become available through a breach of this Agreement by Executive.

UNPAID OBLIGATIONS. "Unpaid Obligations" shall mean the sum of (i) any salary earned but unpaid through the date of termination of employment, (ii) any bonus earned (as determined by the Board) in respect of a fiscal year prior to the fiscal year in which the date of termination occurs, which bonus is unpaid as of the date of termination of employment, and (iii) reimbursement of any reimbursable expense incurred by Executive through the date of termination of employment.

EXHIBIT 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14 AND 15d-14, AS ADOPTED PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, Sudhir Agrawal, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc.;

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)) for the registrant and have:

a) 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) [Not Applicable]

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.

/s/ SUDHIR AGRAWAL

Sudhir Agrawal
Chief Executive Officer

Dated: May 12, 2006

EXHIBIT 31.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO EXCHANGE ACT RULES 13a-14 AND 15d-14, AS ADOPTED PURSUANT TO SECTION 302 OF SARBANES-OXLEY ACT OF 2002

I, Robert G. Andersen certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc.;

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)) for the registrant and have:

a) 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) [Not Applicable]

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.

/s/ ROBERT G. ANDERSEN

Robert G. Andersen
Chief Financial Officer

Dated: May 12, 2006

EXHIBIT 32.1

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

In connection with the Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc. (the "Company") for the period ended March 31, 2006 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Sudhir Agrawal, Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to Idera Pharmaceuticals, Inc. and will be retained by Idera Pharmaceuticals, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

/s/ SUDHIR AGRAWAL
Sudhir Agrawal
Chief Executive Officer

Date: May 12, 2006

EXHIBIT 32.2

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

In connection with the Quarterly Report on Form 10-Q of Idera Pharmaceuticals, Inc. (the "Company") for the period ended March 31, 2006 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Robert G. Andersen, Chief Financial Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, that:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement has been provided to Idera Pharmaceuticals, Inc. and will be retained by Idera Pharmaceuticals, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

/s/ ROBERT G. ANDERSEN

Robert G. Andersen
Chief Financial Officer

Date: May 12, 2006