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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2014

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

For the transition period from to _____ to _____

Commission File Number: 001-35076

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

Delaware	31-1080091
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
5600 Blazer Parkway, Suite 200, Dublin, Ohio	43017-7550
(Address of principal executive offices)	(Zip Code)

(614) 793-7500
(Registrant's telephone number, including area code)

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or 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 has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☒
Non-accelerated filer ☐	Smaller reporting company ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12-b-2 of the 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: 150,635,893 shares of common stock, par value $.001 per share (as of the close of business on August 1, 2014).

NAVIDEA BIOPHARMACEUTICALS, INC. and SUBSIDIARIES

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PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Navidea Biopharmaceuticals, Inc. and Subsidiaries
Consolidated Balance Sheets

ASSETS	June 30, 2014 (unaudited)	December 31, 2013
Current assets:		
Cash	$ 17,471,780	$ 32,939,026
Accounts receivable	487,149	1,150,626
Inventory	1,905,763	2,232,436
Prepaid expenses and other	700,561	1,009,094
Total current assets	20,565,253	37,331,182
Property and equipment	4,117,744	3,609,059
Less accumulated depreciation and amortization	1,354,816	1,483,676
	2,762,928	2,125,383
Patents and trademarks	159,848	163,302
Less accumulated amortization	33,402	26,448
	126,446	136,854
Deferred debt issuance costs and other	133,698	723,098
Total assets	$ 23,588,325	$ 40,316,517

Continued

Navidea Biopharmaceuticals, Inc. and Subsidiaries
Consolidated Balance Sheets, continued

LIABILITIES AND STOCKHOLDERS' DEFICIT	June 30, 2014 (unaudited)	December 31, 2013
Current liabilities:		
Accounts payable	$ 1,674,071	$ 2,422,349
Accrued liabilities and other	3,695,795	4,772,963
Notes payable, current, net of discounts of $809,560 and $743,062, respectively	782,512	4,095,650
Total current liabilities	6,152,378	11,290,962
Notes payable, net of discounts of $1,939,637 and $856,746, respectively	30,438,739	23,572,603
Derivative liabilities	7,689,550	7,692,087
Other liabilities	3,142,933	1,770,452
Total liabilities	47,423,600	44,326,104
Commitments and contingencies		
Stockholders' deficit:		
Preferred stock; $.001 par value; 5,000,000 shares authorized; 3,143 and 7,565 Series B shares issued and outstanding at June 30, 2014 and December 31, 2013, respectively	3	8
Common stock; $.001 par value; 200,000,000 shares authorized; 150,635,893 and 135,919,423 shares issued and outstanding at June 30, 2014 and December 31, 2013, respectively	150,636	135,919
Additional paid-in capital	315,234,175	313,111,788
Accumulated deficit	(339,220,089)	(317,257,302)
Total stockholders' deficit	(23,835,275)	(4,009,587)
Total liabilities and stockholders' deficit	$ 23,588,325	$ 40,316,517

See accompanying notes to consolidated financial statements (unaudited).

Navidea Biopharmaceuticals, Inc. and Subsidiaries
Consolidated Statements of Operations
(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2014	**2013**	**2014**	**2013**
Revenue:				
Net sales	$ 1,046,257	$ 127,821	$ 1,672,888	$ 127,821
Grant revenue	28,433	67,456	153,606	67,456
Total revenue	1,074,690	195,277	1,826,494	195,277
Cost of goods sold	270,498	105,438	463,718	105,438
Gross profit	804,192	89,839	1,362,776	89,839
Operating expenses:				
Research and development	5,112,098	4,376,833	10,338,892	8,016,590
Selling, general and administrative	4,907,652	4,169,437	8,818,485	7,533,927
Total operating expenses	10,019,750	8,546,270	19,157,377	15,550,517
Loss from operations	(9,215,558)	(8,456,431)	(17,794,601)	(15,460,678)
Other income (expense):				
Interest income	5,019	1,962	11,812	3,459
Interest expense	(914,070)	(465,268)	(1,857,908)	(828,350)
Change in fair value of financial instruments	(92,332)	—	300,151	—
Loss on extinguishment of debt	—	(1,372,266)	(2,610,196)	(1,372,266)
Other, net	(5,293)	(8,348)	(12,045)	16,465
Total other expense, net	(1,006,676)	(1,843,920)	(4,168,186)	(2,180,692)
Net loss attributable to common stockholders	$ (10,222,234)	$ (10,300,351)	$ (21,962,787)	$ (17,641,370)
Loss per common share (basic and diluted)	$ (0.07)	$ (0.09)	$ (0.15)	$ (0.15)
Weighted average shares outstanding (basic and diluted)	150,019,939	118,260,288	147,416,111	116,024,366

See accompanying notes to consolidated financial statements (unaudited).

Navidea Biopharmaceuticals, Inc. and Subsidiaries
Consolidated Statement of Stockholders' Deficit
(unaudited)

	Preferred Stock		Common Stock		Additional Paid-In	Accumulated	
	Shares	Amount	Shares	Amount	Capital	Deficit	Total
Balance, December 31, 2013	7,565	$ 8	135,919,423	$ 135,919	$ 313,111,788	$ (317,257,302)	$ (4,009,587)
Issued stock upon exercise of stock options, net			235,075	235	(5,644)		(5,409)
Issued restricted stock			160,000	160			160
Canceled forfeited restricted stock	—	—	(175,000)	(175)	—	—	(175)
Issued stock to 401(k) plan	—	—	36,455	37	100,007	—	100,044
Conversion of Series B preferred stock to common stock	(4,422)	(5)	14,459,940	14,460	(14,455)		—
Issued warrants in connection with debt issuance					464,990		464,990
Recovery of shareholder short swing profits					17,554		17,554
Stock compensation expense					1,559,935		1,559,935
Net loss						(21,962,787)	(21,962,787)
Balance, June 30, 2014	3,143	$ 3	150,635,893	$ 150,636	$ 315,234,175	$ (339,220,089)	$ (23,835,275)

See accompanying notes to consolidated financial statements (unaudited).

Navidea Biopharmaceuticals, Inc. and Subsidiaries
Consolidated Statements of Cash Flows
(unaudited)

	Six Months Ended June 30,	
	2014	**2013**
Cash flows from operating activities:		
Net loss	$ (21,962,787)	$ (17,641,370)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	235,356	234,607
Loss on disposal and abandonment of assets	28,681	—
Amortization of debt discount and issuance costs	436,824	243,139
Stock compensation expense	1,559,935	1,422,125
Change in fair value of financial instruments	(300,151)	—
Loss on extinguishment of debt	2,610,196	1,372,266
Issued stock to 401(k) plan	100,044	66,777
Changes in operating assets and liabilities:		
Accounts receivable	663,477	(66,714)
Inventory	326,673	(1,032,252)
Prepaid expenses and other assets	194,694	(491,496)
Accounts payable	(748,278)	1,469,723
Accrued and other liabilities	(737,089)	(328,021)
Net cash used in operating activities	(17,592,425)	(14,751,216)
Cash flows from investing activities:		
Purchases of equipment	(1,108,164)	(672,046)
Patent and trademark costs	(14,361)	(16,948)
Net cash used in investing activities	(1,122,525)	(688,994)
Cash flows from financing activities:		
Proceeds from issuance of common stock and short swing profits	88,064	11,303,767
Payment of common stock issuance costs	—	(668,064)
Payment of tax withholdings related to stock-based compensation	(75,759)	(659,018)
Proceeds from notes payable	30,000,000	29,000,000
Payment of debt-related costs	(1,763,526)	(1,111,181)
Principal payments on notes payable	(25,000,000)	(5,901,335)
Payments under capital leases	(1,075)	(4,218)
Net cash provided by financing activities	3,247,704	31,959,951
Net (decrease) increase in cash	(15,467,246)	16,519,741
Cash, beginning of period	32,939,026	9,118,564
Cash, end of period	$ 17,471,780	$ 25,638,305

See accompanying notes to consolidated financial statements (unaudited).

Notes to the Consolidated Financial Statements (unaudited)

1. Summary of Significant Accounting Policies

a. Basis of Presentation: The information presented as of June 30, 2014 and for the three-month and six-month periods ended June 30, 2014 and 2013 is unaudited, but includes all adjustments (which consist only of normal recurring adjustments) that the management of Navidea Biopharmaceuticals, Inc. (Navidea, the Company, or we) believes to be necessary for the fair presentation of results for the periods presented. Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to the rules and regulations of the U.S. Securities and Exchange Commission. The balances as of June 30, 2014 and the results for the interim periods are not necessarily indicative of results to be expected for the year. The consolidated financial statements should be read in conjunction with Navidea's audited consolidated financial statements for the year ended December 31, 2013, which were included as part of our Annual Report on Form 10-K.

Our consolidated financial statements include the accounts of Navidea and our wholly owned subsidiaries, Navidea Biopharmaceuticals Limited and Cardiosonix Ltd. All significant inter-company accounts were eliminated in consolidation.

b. Financial Instruments and Fair Value: In accordance with current accounting standards, the fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value, giving the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

Level 1 – Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2 – Quoted prices in markets that are not active or financial instruments for which all significant inputs are observable, either directly or indirectly; and

Level 3 – Prices or valuations that require inputs that are both significant to the fair value measurement and unobservable.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. In determining the appropriate levels, we perform a detailed analysis of the assets and liabilities whose fair value is measured on a recurring basis. At each reporting period, all assets and liabilities for which the fair value measurement is based on significant unobservable inputs or instruments which trade infrequently and therefore have little or no price transparency are classified as Level 3. See Note 2.

The following methods and assumptions were used to estimate the fair value of each class of financial instruments:

(1) Cash, accounts receivable, accounts payable, and accrued liabilities: The carrying amounts approximate fair value because of the short maturity of these instruments.

(2) Notes payable: The carrying value of our debt at June 30, 2014 and December 31, 2013 primarily consists of the face amount of the notes less unamortized discounts. See Note 7. At June 30, 2014 and December 31, 2013, certain notes payable were also required to be recorded at fair value. The estimated fair value of our debt was calculated using a discounted cash flow analysis as well as a probability-weighted Monte Carlo simulation. These valuation methods include Level 3 inputs such as the estimated current market interest rate for similar instruments with similar creditworthiness. Unrealized gains and losses on the fair value of the debt are classified in other expenses as a change in the fair value of financial instruments in the consolidated statements of operations. At June 30, 2014, the fair value of our notes payable is approximately $35.6 million.

(3) Derivative liabilities: Derivative liabilities are related to certain outstanding warrants which are recorded at fair value. The assumptions used to calculate fair value as of June 30, 2014 include volatility, a risk-free rate and expected dividends. In addition, we considered non-performance risk and determined that such risk is minimal. Unrealized gains and losses on the derivatives are classified in other expenses as a change in the fair value of financial instruments in the consolidated statements of operations. See Notes 2 and 8.

c. **Revenue Recognition:** We currently generate revenue primarily from sales of Lymphoseek. Our standard shipping terms are FOB shipping point, and title and risk of loss passes to the customer upon delivery to a carrier for shipment from Cardinal Health's national distribution center to another point of destination. We generally recognize sales revenue related to sales of our products when the products are shipped. Our customers have no right to return products purchased in the ordinary course of business.

We earn additional revenues based on a percentage of the actual net revenues achieved by Cardinal Health on sales to end customers made during each fiscal year. The amount we charge Cardinal Health related to end customer sales of Lymphoseek are subject to a retroactive annual adjustment. To the extent that we can reasonably estimate the end-customer prices received by Cardinal Health, we record sales based upon these estimates at the time of sale. If we are unable to reasonably estimate end customer sales prices related to products sold, we record revenue related to these product sales at the minimum (i.e., floor) price provided for under our distribution agreement with Cardinal Health.

We generate additional revenue from grants to support various product development initiatives. We generally recognize grant revenue when expenses reimbursable under the grants have been incurred and payments under the grants become contractually due.

d. **Recent Accounting Pronouncements:** In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers*. The core principle of ASU 2014-09 is built on the contract between a vendor and a customer for the provision of goods and services. It attempts to depict the exchange of rights and obligations between the parties in the pattern of revenue recognition based on the consideration to which the vendor is entitled. To accomplish this objective, ASU 2014-09 requires five basic steps: (i) identify the contract with the customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations in the contract, (v) recognize revenue when (or as) the entity satisfies a performance obligation. Entities will generally be required to make more estimates and use more judgment than under current guidance, which will be highlighted for users through increased disclosure requirements. ASU 2014-09 is effective for public entities for annual periods beginning after December 15, 2016, including interim periods therein. Three basic transition methods are available - full retrospective, retrospective with certain practical expedients, and a cumulative effect approach. Early adoption is prohibited. We are currently evaluating the impact of our pending adoption of ASU 2014-09 on our consolidated financial statements and have not yet determined the method by which we will adopt the standard in 2017.

In June 2014, the FASB issued ASU No. 2014-12, *Compensation-Stock Compensation.* ASU 2014-12 requires that a performance target included in a share-based payment award that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. Therefore, under the existing stock compensation guidance for in Topic 718, the performance target should not be reflected in estimating the grant-date fair value of the award. Compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. If the performance target becomes probable of being achieved before the end of the requisite service period, the remaining unrecognized compensation cost should be recognized prospectively over the remaining requisite service period. The total amount of compensation cost recognized during and after the requisite service period should reflect the number of awards that are expected to vest and should be adjusted to reflect those awards that ultimately vest. The requisite service period ends when the employee can cease rendering service and still be eligible to vest in the award if the performance target is achieved. ASU 2014-12 is effective for annual periods beginning after December 15, 2015, including interim periods therein. Earlier adoption is permitted. Entities may apply the amendments in ASU 2014-12 either (a) prospectively to all awards granted or modified after the effective date or (b) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If retrospective transition is adopted, the cumulative effect of applying ASU 2014-12 as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. Additionally, if retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. We do not expect the adoption of ASU 2014-12 to have a material effect on our consolidated financial statements.

2. Fair Value Hierarchy

Beginning in the second quarter of 2013, Platinum-Montaur Life Sciences, LLC (Platinum) has the right to convert all or any portion of the unpaid principal or unpaid interest accrued on any future draws under the Platinum credit facility, under certain circumstances. Platinum's option to convert future draws into common stock was determined to meet the definition

of a liability and is included as part of the value of the related notes payable on the consolidated balance sheet. The estimated fair value of the Platinum notes payable is $4.0 million at June 30, 2014, and will continue to be measured on a recurring basis. See Note 8.

In September 2013, in connection with a Securities Purchase Agreement with Crede CG III, Ltd. (Crede), we issued warrants containing certain features that, although they do not require the warrants to be settled in cash, do require the warrants to be classified as liabilities under applicable accounting rules. As a result, the Company recorded a derivative liability with an estimated fair value of $7.7 million on the date the warrants were issued. The estimated fair value of the liability remained at $7.7 million as of June 30, 2014, and will continue to be measured on a recurring basis. See Notes 1b(3) and 8.

The following tables set forth, by level, financial liabilities measured at fair value on a recurring basis:

Liabilities Measured at Fair Value on a Recurring Basis as of June 30, 2014

Description	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of June 30, 2014
Platinum notes payable	$ —	$ —	$ 3,970,448	$ 3,970,448
Derivative liabilities related to warrants	—	7,689,550	—	7,689,550

Liabilities Measured at Fair Value on a Recurring Basis as of December 31, 2013

Description	Quoted Prices in Active Markets for Identical Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Balance as of December 31, 2013
Platinum notes payable	$ —	$ —	$ 4,268,062	$ 4,268,062
Derivative liabilities related to warrants	—	7,692,087	—	7,692,087

a. **Valuation Processes-Level 3 Measurements:** Depending on the instrument, the Company utilizes discounted cash flows, option pricing models, or third-party valuation services to estimate the value of their financial assets and liabilities. Valuations using discounted cash flow methods and certain option pricing models such as Black-Scholes are generally conducted by the Company. Valuations using complex models such as Monte Carlo simulation are generally provided to the Company by third-party valuation experts. Each reporting period, the Company provides significant unobservable inputs to the third-party valuation experts based on current internal estimates and forecasts.

b. **Sensitivity Analysis-Level 3 Measurements:** Changes in the Company's current internal estimates and forecasts are likely to cause material changes in the fair value of the liabilities. The significant unobservable inputs used in the fair value measurement of the liabilities are the amount and timing of future draws expected to be taken under the Platinum Loan Agreement based on current internal forecasts, management's estimate of the likelihood of actually making those draws as opposed to obtaining other sources of financing, and management's estimate of the likelihood of those draws ultimately resulting in Platinum exercising their conversion option under the Platinum Loan Agreement. Significant increases (decreases) in any of the significant unobservable inputs would result in a higher (lower) fair value measurement. A change in one of the inputs would not necessarily result in a directionally similar change in the others.

There were no Level 1 liabilities outstanding at any time during the three-month and six-month periods ended June 30, 2014 and 2013. There were no transfers in or out of our Level 2 liabilities during the three-month and six-month periods ended June 30, 2014 or 2013.

3. Stock-Based Compensation

At June 30, 2014, we have instruments outstanding under two stock-based compensation plans; the 1996 Stock Incentive Plan (the 1996 Plan) and the Fourth Amended and Restated 2002 Stock Incentive Plan (the 2002 Plan). Currently, under

the 2002 Plan, we may grant incentive stock options, nonqualified stock options, and restricted stock awards to full-time employees and directors, and nonqualified stock options and restricted stock awards may be granted to our consultants and agents. Total shares authorized under each plan are 1.5 million shares and 12 million shares, respectively. Although instruments are still outstanding under the 1996 Plan, the plan has expired and no new grants may be made from it. Under both plans, the exercise price of each option is greater than or equal to the closing market price of our common stock on the date of the grant.

Stock options granted under the 1996 Plan and the 2002 Plan generally vest on an annual basis over one to four years. Outstanding stock options under the plans, if not exercised, generally expire ten years from their date of grant or up to 90 days following the date of an optionee's separation from employment with the Company. We issue new shares of our common stock upon exercise of stock options.

Stock-based payments to employees and directors, including grants of stock options, are recognized in the consolidated statements of operations based on their estimated fair values. The fair value of each stock option award is estimated on the date of grant using the Black-Scholes option pricing model. Expected volatilities are based on the Company's historical volatility, which management believes represents the most accurate basis for estimating expected future volatility under the current circumstances. Navidea uses historical data to estimate forfeiture rates. The expected term of stock options granted is based on the vesting period and the contractual life of the options. The risk-free rate is based on the U.S. Treasury yield in effect at the time of the grant.

Compensation cost arising from stock-based awards is recognized as expense over either (1) the requisite service period or (2) the estimated performance period. Restricted stock awards are valued based on the closing stock price on the date of grant and amortized ratably over the estimated life of the award. Restricted stock may vest based on the passage of time, or upon occurrence of a specific event or achievement of goals as defined in the grant agreements. In such cases, we record compensation expense related to grants of restricted stock based on management's estimates of the probable dates of the vesting events.

For the three-month periods ended June 30, 2014 and 2013, our total stock-based compensation expense was approximately $867,000 and $679,000, respectively. For the six-month periods ended June 30, 2014 and 2013, our total stock-based compensation expense was approximately $1.6 million and $1.4 million, respectively. We have not recorded any income tax benefit related to stock-based compensation in any of the three-month or six-month periods ended June 30, 2014 and 2013.

A summary of the status of our stock options as of June 30, 2014, and changes during the six-month period then ended, is presented below:

	Six Months Ended June 30,			
	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life	Aggregate Intrinsic Value
Outstanding at beginning of period	4,866,602	$ 2.38		
Granted	1,468,230	1.77		
Exercised	(323,000)	0.50		
Canceled and Forfeited	(33,650)	2.52		
Expired	(120,000)	0.53		
Outstanding at end of period	5,858,182	$ 2.37	7.8 years	$ 619,590
Exercisable at end of period	2,623,736	$ 2.21	6.5 years	$ 619,590

A summary of the status of our unvested restricted stock as of June 30, 2014, and changes during the six-month period then ended, is presented below:

	Six Months Ended June 30,	
	Number of Shares	Weighted Average Grant-Date Fair Value
Unvested at beginning of period	634,250	$ 2.73
Granted	160,000	1.79
Vested	(149,000)	3.16
Forfeited	(175,000)	1.77
Expired	—	—
Unvested at end of period	470,250	$ 2.63

In February 2014, 49,000 shares of restricted stock held by non-employee directors with an aggregate fair value of $96,000 vested as scheduled according to the terms of the restricted stock agreements. In March 2014, 100,000 shares of restricted stock with an aggregate fair value of $205,000 vested as scheduled according to the terms of a restricted stock agreement. In May 2014, 175,000 shares of restricted stock held by our former CEO with an aggregate fair value of $278,000 were forfeited in connection with his separation from employment.

As of June 30, 2014, there was approximately $2.1 million of total unrecognized compensation expense related to unvested stock-based awards, which we expect to recognize over remaining weighted average vesting terms of 2.1 years.

4. Earnings (Loss) Per Share

Basic earnings (loss) per share is calculated by dividing net income (loss) attributable to common stockholders by the weighted-average number of common shares and, except for periods with a loss from operations, participating securities outstanding during the period. Diluted earnings (loss) per share reflects additional common shares that would have been outstanding if dilutive potential common shares had been issued. Potential common shares that may be issued by the Company include convertible securities, options and warrants.

Earnings (loss) per common share for the three-month and six-month periods ended June 30, 2014 and 2013 excludes the effects of 18.3 million and 34.5 million common share equivalents, respectively, since such inclusion would be anti-dilutive. The excluded shares consist of common shares issuable upon exercise of outstanding stock options and warrants, and upon the conversion of convertible debt and convertible preferred stock.

The Company’s unvested stock awards contain nonforfeitable rights to dividends or dividend equivalents, whether paid or unpaid (referred to as “participating securities”). Therefore, the unvested stock awards are required to be included in the number of shares outstanding for both basic and diluted earnings per share calculations. However, due to our loss from continuing operations, 470,000 and 651,000 shares of unvested restricted stock were excluded in determining basic and diluted loss per share for the three-month and six-month periods ended June 30, 2014 and 2013, respectively, because such inclusion would be anti-dilutive.

5. Inventory

All components of inventory are valued at the lower of cost (first-in, first-out) or market. We adjust inventory to market value when the net realizable value is lower than the carrying cost of the inventory. Market value is determined based on estimated sales activity and margins.

The components of inventory as of June 30, 2014 and December 31, 2013, with no reserves recorded for either period, are as follows:

	June 30, 2014 (unaudited)	December 31, 2013
Materials	$ 603,719	$ 652,818
Work-in-process	1,067,507	1,073,568
Finished goods	234,537	506,050
Total	$ 1,905,763	$ 2,232,436

During the three-month and six-month periods ended June 30, 2013, we capitalized $545,000 and $1.1 million, respectively, of inventory costs associated with our Lymphoseek® (technetium Tc 99m tilmanocept) Injection product. The Company capitalized no such costs during the same period in 2014. During the three-month and six-month periods ended June 30, 2014, we wrote off $45,000 and $55,000, respectively, of previously capitalized Lymphoseek inventory due to the consumption of the Lymphoseek material for product testing and development purposes.

We estimate a reserve for obsolete inventory based on management's judgment of probable future commercial use, which is based on an analysis of current inventory levels, estimated future sales and production rates, and estimated shelf lives. During the six-month periods ended June 30, 2014 and 2013, we recorded no obsolescence reserve for Lymphoseek inventory.

6. Reduction in Force

In May 2014, the Company's Board of Directors made the decision to refocus the Company's resources to better align the funding of our pipeline programs with the expected growth in Lymphoseek revenue. As a part of the realignment, the Company terminated a total of 11 employees, including the Chief Executive Officer, Dr. Mark J. Pykett. The Company recognized total separation expenses of approximately $1.4 million during the quarter ended June 30, 2014.

Effective May 30, 2014, the Company and Dr. Pykett entered into a Separation Agreement and Release. Following the termination date, Dr. Pykett is entitled to receive a $750,000 severance payment, payable in two equal installments on June 9, 2014, and January 2, 2015, respectively; a single payment for accrued vacation and personal days; and reimbursement for certain other expenses and fees.

Certain of Dr. Pykett's equity awards terminated upon separation, while others were modified in conjunction with the Separation Agreement and the Consulting Agreement described below. The Company recognized approximately $512,000 of compensation expense associated with the modification of Dr. Pykett's equity awards during the quarter ended June 30, 2014.

Effective June 1, 2014, the Company and Dr. Pykett entered into a Consulting Agreement pursuant to which Dr. Pykett will serve as an independent consultant to the Company until December 31, 2014 with respect to clinical-regulatory activities, commercial activities, program management, and business development, among other services. Dr. Pykett is entitled to a consulting fee of $27,500 per month plus reimbursement of reasonable expenses. The Consulting Agreement also provides for a grant of 40,000 shares of restricted stock which vest upon certain service and performance conditions. During the term of the Consulting Agreement and for one year thereafter, Dr. Pykett is prohibited from competing with the Company, including the solicitation of customers or employees of the Company. Dr. Pykett may terminate the Consulting Agreement at any time upon 30 days' prior written notice. The Company recognized expense of $32,000 under the Consulting Agreement during the quarter ended June 30, 2014.

The following table summarizes the remaining accrued separation costs, including estimated employer payroll tax obligations, related to the Company's reduction in force, which are included in accrued liabilities and other on the consolidated balance sheet as of June 30, 2014:

	As of June 30, 2014
Separation	$ 413,304
Estimated cost of continuing healthcare coverage	60,882
	$ 474,186

The Company appointed Michael M. Goldberg, M.D., as interim Chief Executive Officer effective May 30, 2014. Dr. Goldberg currently serves as a member of the Board of Directors of the Company and will not receive any salary for his service as interim Chief Executive Officer, although the Company has agreed to pay Montaur Capital Partners, LLC (Montaur), where Dr. Goldberg is principal, $15,000 per month to cover additional costs and resources Montaur will incur or redirect due to the unavailability of Dr. Goldberg's services resulting from his service as interim Chief Executive Officer of Navidea.

7. Notes Payable

In March 2014, we executed a Loan and Security Agreement the (Oxford Loan Agreement) with Oxford Finance, LLC (Oxford), providing for a loan to the Company of $30 million. Pursuant to the Oxford Loan Agreement, we issued Oxford: (1) Term Notes in the aggregate principal amount of $30,000,000, bearing interest at 8.5% (the Oxford Notes), and (2) Series KK warrants to purchase an aggregate of 391,032 shares of our common stock at an exercise price of $1.918 per share, expiring in March 2021 (the Series KK warrants). We will make monthly payments of interest only commencing on April 1, 2014, and continuing on the first calendar day of each successive month thereafter through and including the first calendar day of the month immediately preceding April 1, 2015 (the Amortization Date, which may be extended to April 1, 2016, and again to April 1, 2017, if the Company achieves certain milestones associated with the Company’s Lymphoseek product). Commencing on the Amortization Date, and continuing on the first calendar day of each month thereafter, the Company will make consecutive equal monthly payments of principal and interest, in arrears, to the lenders then party to the Oxford Loan Agreement based on a repayment schedule of 48 months if the Amortization Date is April 1, 2015, 36 months if the Amortization Date is April 1, 2016, and 24 months if the Amortization Date is April 1, 2017. All unpaid principal, and accrued and unpaid interest, with respect to the Oxford Notes is due and payable in full on March 1, 2019. We will also make a final payment to the lenders in an aggregate amount equal to the original principal amount of the loan multiplied by 7.95% if the Amortization Date is April 1, 2015; 8.95% if the Amortization Date is extended to April 1, 2016; or 9.95% if the Amortization Date is extended to April 1, 2017. The Oxford Notes are collateralized by a security interest in substantially all of the Company’s assets except for intellectual property, as to which the security interest is in rights to income or proceeds from the sale or licensing thereof. The Oxford Loan Agreement requires that the Company adhere to certain affirmative and negative covenants, including, without limitation, financial reporting requirements and a prohibition against the incurrence of indebtedness, or creation of additional liens, other than as specifically permitted by the terms of the Oxford Loan Agreement. As of June 30, 2014, the outstanding principal balance of the Oxford Loan Agreement was $30 million, and we were in compliance with all covenants of the Oxford Loan Agreement.

The Company recorded a debt discount related to the issuance of the Series KK Warrants and other fees to the lenders totaling $3.0 million. Debt issuance costs directly attributable to the Oxford Loan Agreement, totaling $120,000, were recorded as a non-current asset on the consolidated balance sheet on the closing date. The debt discount and debt offering costs are being amortized as non-cash interest expense using the effective interest method over the term of the Oxford Loan Agreement. As of June 30, 2014, the balance of the debt discount was $2.7 million, and the balance of the debt issuance costs was $108,000.

Also in March 2014, in connection with the consummation of the Oxford Loan Agreement, we repaid all amounts outstanding under the General Electric Capital Corporation (GECC) and MidCap Financial SBIC, LP (MidCap) Loan and Security Agreement for a payoff amount of $26.7 million, which included payments of $500,000 as a pre-payment fee and $1,000,000 as an end-of-term final payment fee.

In March 2014, in connection with entering into the Oxford Loan Agreement, we entered into a second amendment to the Platinum Loan Agreement (the Second Platinum Amendment). Concurrent with the execution of the Second Platinum Amendment, the Company delivered an Amended and Restated Promissory Note (the Second Amended Platinum Note) to Platinum, which amended and restated the First Amended Platinum Note. The Second Amended Platinum Note adjusted the interest rate to the greater of (i) the United States prime rate as reported in The Wall Street Journal plus 6.75%, (ii)

10.0%, and (iii) the highest rate of interest then payable by the Company pursuant to the Oxford Loan Agreement plus 0.125%. Navidea, Platinum, and Oxford also entered into a Subordination Agreement, providing for subordination of the Company's indebtedness under the Platinum Loan Agreement to the Company's indebtedness under the Oxford Loan Agreement, among other customary terms and conditions. As such, no payments may be made under the Platinum loan until the Oxford Notes have been paid in full and therefore, the current balance outstanding under the Platinum loan has been classified as long-term notes payable to coincide with the maturity of the Oxford Notes. The fair value of the Second Amended Platinum Note includes the estimated fair value of an embedded conversion option. The net decrease in the estimated fair value of the Second Amended Platinum Note of $298,000 was recorded as a non-cash change in fair value of financial instruments during the six-month period ended June 30, 2014. The estimated fair value of the Second Amended Platinum Note was $3.9 million as of June 30, 2014. As of June 30, 2014, the remaining outstanding principal balance of the Second Amended Platinum Note was approximately $3.2 million, with $31.8 million still available under the credit facility.

During the three-month periods ended June 30, 2014 and 2013, we recorded interest expense of $914,000 and $465,000, respectively, related to our notes payable. Of these amounts, $195,000 and $121,000, respectively, related to amortization of the debt discounts and deferred financing costs related to our notes payable. During the six-month periods ended June 30, 2014 and 2013, we recorded interest expense of $1.9 million and $828,000, respectively, related to our notes payable. Of these amounts, $437,000 and $243,000, respectively, related to amortization of the debt discounts and deferred financing costs related to our notes payable.

In July 2014, in connection with entering into the R-NAV joint enterprise (see Note 13), we entered into an amendment to the Oxford Loan Agreement that amended certain covenants to permit our investment in R-NAV, and R-NAV entered into a Subordination Agreement with Oxford to subordinate our indebtedness to R-NAV to our obligations under the Oxford Loan Agreement.

8. Derivative Instruments

Certain embedded features of our convertible securities and notes payable, as well as warrants to purchase our common stock, may be treated as derivative liabilities. The estimated fair values of the derivative liabilities are recorded as non-current liabilities on the consolidated balance sheet. Changes in the estimated fair values of the derivative liabilities are recorded in the consolidated statement of operations as non-cash income (expense). We do not use derivative instruments for hedging of market risks or for trading or speculative purposes.

At June 30, 2014, derivative liabilities consist of the Series JJ warrants issued to Crede in September 2013. The net effect of marking the Company's derivative liabilities to market during the three-month and six-month periods ended June 30, 2014 resulted in net decreases in the estimated fair values of the derivative liabilities of approximately $4,000 and $3,000, respectively, which were recorded as non-cash changes in the fair value of financial instruments. The total estimated fair value of our derivative liabilities was $7.7 million as of June 30, 2014. No derivative liabilities were outstanding as of December 31, 2013. See Notes 1b(3) and 2.

9. Equity

During the six-month period ended June 30, 2014, Platinum converted 4,422 shares of their Series B Preferred Stock into 14,459,940 shares of our common stock under the terms of the Series B Preferred Stock. As of June 30, 2014, there are 3,143 shares of Series B Preferred Stock outstanding which are convertible into 10,277,610 shares of our common stock.

10. Stock Warrants

In March 2014, in connection with the Oxford Loan Agreement, the Company issued Series KK warrants to purchase an aggregate of 391,032 shares of our common stock at an exercise price of $1.918 per share, expiring in March 2021.

At June 30, 2014, there are 4.9 million warrants outstanding to purchase our common stock. The warrants are exercisable at prices ranging from $1.918 to $3.83 per share with a weighted average exercise price of $3.27 per share.

11. Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Due to the uncertainty surrounding the realization of the deferred tax assets in future tax returns, all of the deferred tax assets have been fully offset by a valuation allowance at June 30, 2014 and December 31, 2013.

Current accounting standards include guidance on the accounting for uncertainty in income taxes recognized in the financial statements. Such standards also prescribe a recognition threshold and measurement model for the financial statement recognition of a tax position taken, or expected to be taken, and provides guidance on derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. The Company believes that the ultimate deductibility of all tax positions is highly certain, although there is uncertainty about the timing of such deductibility. As a result, no liability for uncertain tax positions was recorded as of June 30, 2014 or December 31, 2013 and we do not expect any significant changes in the next twelve months. Should we need to accrue interest or penalties on uncertain tax positions, we would recognize the interest as interest expense and the penalties as a selling, general and administrative expense. As of June 30, 2014, tax years 2010-2013 remained subject to examination by federal and state tax authorities.

12. Supplemental Disclosure for Statements of Cash Flows

During the six-month periods ended June 30, 2014 and 2013, we paid interest aggregating $1.4 million and $607,000, respectively. During the six-month periods ended June 30, 2014 and 2013, we issued 36,455 and 22,126 shares of our common stock, respectively, as matching contributions to our 401(k) plan.

In connection with entering into the Oxford Loan Agreement, we issued warrants with an estimated relative fair value of $465,000. In conjunction with the GECC Loan Agreement, we issued warrants with a fair value of $631,000.

13. Subsequent Event

On July 15, 2014, Navidea entered into agreements relating to the formation of a limited liability company, R-NAV, LLC (R-NAV), which will pursue opportunities for use of the Company's Manocept™ CD206 macrophage targeting platform technology in diagnosis and treatment of rheumatologic and arthritic diseases. The participants in R-NAV are Navidea, Rheumco, LLC, a portfolio company of Essex Woodlands Health Ventures, and third party private investors affiliated with Essex Woodlands. Using a combination of the Company’s Manocept technology and Rheumco’s proprietary Tin-117m radioisotope technology, R-NAV will focus on the development of several diagnostic and therapeutic applications in the arthritis space, each to be conducted in a separate subsidiary of R-NAV:

Subsidiary 1: Detection of rheumatoid arthritis (RA) initially using Tc-99m tilmanocept, commercially known as Lymphoseek® (technetium Tc 99m tilmanocept) Injection,

Subsidiary 2: Combination of the Manocept platform with Tin-117m for detection and treatment of RA,

Subsidiary 3: Detection and treatment of human and veterinary osteoarthritis (OA) using the Tin-117m technology, and

Subsidiary 4: Treatment of hemophilic arthropathy (HA), a rare pediatric condition.

The Company has three-year call options to acquire, at its sole discretion, all of the equity of Subsidiary 1 prior to the launch of a Phase 3 clinical trial for its development program, and all of the equity of Subsidiary 2 upon completion of radiochemistry and biodistribution studies for its development program. Both Rheumco and Navidea have contributed licenses for intellectual property and technology to R-NAV in exchange for common units in R-NAV. Each of the licenses has grant-back provisions with respect to inventions and other intellectual property developed in these programs outside of the exclusive fields of use specified in the license.

R-NAV was initially capitalized through a $4 million investment from the investors alongside a $1 million investment from the Company to be paid over three years, with $333,334 in cash contributed at inception and a promissory note in the principal amount of $666,666, payable in two equal installments on the first and second anniversaries of the transaction. The note will bear interest at the applicable federal rate, currently 0.31% per annum. In exchange for its capital and in-kind investment, the Company received 1,000,000 Series A preferred units of R-NAV (Series A Units), and an additional 500,000 Series A Units for management and technical services associated with the programs described above to be performed by the Company for R-NAV pursuant to a services agreement. The Series A Units are convertible into common units at the option of the holder for a conversion price of $1 per unit, subject to broad-based weighted average anti-dilution rights.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Forward-Looking Statements

This 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. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends affecting the financial condition of our business. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including, among other things:

- general economic and business conditions, both nationally and in our markets;
- our history of losses, negative net worth and uncertainty of future profitability;
- our ability to successfully complete research and further development of our drug candidates;
- the timing, cost and uncertainty of obtaining regulatory approvals of our drug candidates;
- our ability to successfully commercialize our drug candidates;
- our expectations and estimates concerning future financial performance, financing plans and the impact of competition;
- our ability to raise capital sufficient to fund our development and commercialization programs;
- our ability to implement our growth strategy;
- anticipated trends in our business;
- advances in technologies; and
- other risk factors set forth in this report and detailed in our most recent Annual Report on Form 10-K and other SEC filings.

In addition, in this report, we use words such as "anticipate," "believe," "plan," "expect," "future," "intend," and similar expressions to identify forward-looking statements.

We undertake no obligation to update publicly or revise any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this report. In light of these risks and uncertainties, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially from those anticipated or implied in the forward-looking statements.

The Company

Navidea Biopharmaceuticals, Inc. (Navidea, the Company, or we), a Delaware corporation, is a biopharmaceutical company focused on the development and commercialization of precision diagnostics. We have five pharmaceutical platforms in various stages of development:

- Lymphoseek® (technetium Tc 99m tilmanocept) Injection is a novel, receptor-targeted, small-molecule radiopharmaceutical used in lymphatic mapping procedures that are performed to help evaluate patients with breast cancer or melanoma. Lymphoseek is designed to identify the lymph nodes that drain from a primary tumor, which have the highest probability of harboring cancer. It was approved by the U.S. Food and Drug Administration (FDA) in March 2013, and launched commercially in the United States in May 2013.
- Navidea's Manocept™ platform is predicated on the ability of the backbone of tilmanocept to specifically target the CD206 mannose receptor expressed on macrophages. Building on the success of Lymphoseek, this flexible and versatile platform acts as an engine for the design of purpose-built molecules offering the potential to be utilized across a range of diagnostic modalities, including single photon emission computed tomography (SPECT), positron emission tomography (PET), intra-operative and/or optical-fluorescence detection in a variety of disease states.

- NAV4694 is a Fluorine-18 (F-18) radiolabeled PET imaging agent being developed as an aid in the diagnosis of patients with signs or symptoms of Alzheimer's disease (AD) and mild cognitive impairment (MCI).
- NAV5001 is an Iodine-123 (I-123) radiolabeled SPECT imaging agent being developed as an aid in the diagnosis of Parkinson's disease (PD) and other movement disorders, with potential use as a diagnostic aid in dementia.
- NAV1800 (formerly RIGScan™) is being developed as a diagnostic aid for imaging and use during surgery to help surgeons locate occult or metastatic cancer, with a primary focus to date on colorectal cancer.

The last four of these drug product platforms are in development and must be cleared for marketing by the appropriate regulatory authorities before they can be sold in any markets.

Product Line Overview

Our primary development efforts over the last few years have been focused on the development of our now-approved Lymphoseek product, as well as more recently on our other pipeline programs, including NAV4694, NAV5001, NAV1800, and our Manocept platform. In May 2014, the Board of Directors made the decision to refocus the Company's resources to better align the funding of our pipeline programs with the expected growth in Lymphoseek revenue. This realignment primarily involves reducing our near-term support for our two neurological product candidates, NAV4694 and NAV5001, as we seek to secure a development partner or partners for these programs. The Company is also working to establish new sources of non-dilutive funding, including collaborations that can augment the balance sheet as the Company works to reduce spending to levels that can be increasingly offset by growing Lymphoseek revenue. In particular, substantial progress on the Manocept platform has resulted in several promising opportunities, including our recently announced R-NAV venture, which we believe may further expand the Company's pipeline but which require less near-term funding from Navidea than the two ongoing Phase 3 neurological development programs.

Navidea remains committed to expanding the Lymphoseek label and realizing the full potential of the product. We intend to work closely with our partners to continue the strong growth of this important product. The Company believes that the resources being devoted to drive Lymphoseek sales will lead to cash flows that can ultimately fund developmental stage programs from cash flow from operations. The Company is focused on expanding the market for Lymphoseek in all relevant markets.

We expect our overall research and development expenditures to be lower during the second half of 2014 as compared to 2013 due to the refocusing efforts outlined above, as we reduce the near-term scope of development of NAV4694, NAV5001, and NAV1800, while we allocate our resources to personnel, contractors and consultants supporting the global registration and commercialization of Lymphoseek, and development of our Manocept platform.

Lymphoseek

Lymphoseek is a lymph node targeting radiopharmaceutical agent intended for use in intraoperative lymphatic mapping procedures and lymphoscintigraphy employed in the overall diagnostic assessment of certain solid tumor cancers. Lymphoseek has the potential to provide oncology surgeons with information to identify key predictive lymph nodes that may harbor cancer and to help avoid the unnecessary removal of non-cancerous lymph nodes and the surrounding tissue in patients with a variety of solid tumor cancers. Lymphoseek was approved and indicated for use in lymphatic mapping for breast cancer and melanoma by the FDA in March 2013.

In December 2013, the FDA granted Fast Track designation to Lymphoseek for sentinel lymph node detection in patients with head and neck cancer and we submitted a supplemental New Drug Application (sNDA) with the FDA seeking approval for the marketing and sale of Lymphoseek for the same indication. In assessing the data-rich submission, the FDA chose to separate the filing into two applications based on the proposed labeling extensions requested and the scope of information provided. The first sNDA, aimed at Lymphoseek's use as a sentinel lymph node detection agent in patients with head and neck cancer, was accepted for review by the FDA in February 2014, and was granted Priority Review. Under the Prescription Drug User Fee Act (PDUFA), the FDA set a target review date for the first sNDA of June 16, 2014. In March 2014, the FDA accepted for review the second sNDA to support broader and more flexible use of Lymphoseek in imaging and lymphatic mapping procedures, including lymphoscintigraphy and other product capabilities. Under PDUFA, the FDA has set a target review date for the second sNDA of October 16, 2014. On June 13, 2014, the FDA approved the first sNDA for the expanded use of Lymphoseek indicated for guiding sentinel lymph node biopsy in head and neck cancer patients with squamous cell carcinoma of the oral cavity, making Lymphoseek the first and only FDA-approved radiopharmaceutical application for sentinel lymph node detection. Additional trials, including an ongoing trial in colorectal cancer, and others in various stages of execution, planning or consideration, are anticipated to provide additional data to potentially support expansion of the Lymphoseek opportunity. The Company continues to advance the second sNDA through productive discussions with the FDA.

In March 2014, we announced results of a three-year, voluntary follow-up study of Lymphoseek conducted in patients who participated in a Phase 3 clinical trial (NEO3-05) of the product. The primary objective of the follow-up study was to determine the regional recurrence-free rate (RRFR) after sentinel lymph node biopsy with Lymphoseek. Results of the follow-up study indicated that in patients who were confirmed to be node-negative after sentinel lymph node biopsy (n=88; 49 breast cancer, 39 melanoma) the RRFR was 98.8% (100% in breast cancer; 97.4% in melanoma) and the disease-specific survival rate was 98.6% (97.8% in breast cancer; 100% in melanoma) at three years.

In June 2014, the Company announced results from combined analyses of Phase 3 clinical trials that evaluated Lymphoseek efficacy in lymphatic mapping for identifying pathology-positive lymph nodes across multiple solid tumor types: melanoma, breast cancer and head and neck squamous cell carcinoma. The results indicated that Lymphoseek sensitivity for sentinel lymph node mapping was consistent across the tumor type studies, regardless of whether surgery was conducted on the same day as, or on the day after, injection of Lymphoseek. Additionally, for patients with head and neck cancer, Lymphoseek demonstrated a low false negative rate (FNR) of 2.6% (4.6% for same day injection before surgery and 0.0% FNR in patients injected the day prior to surgery). Results from the study comprise part of an sNDA filing for Lymphoseek which is under review by the FDA.

Also in June 2014, we announced results from a post-hoc analysis of patient data from the Company's Phase 3 clinical trial (NEO3-06) of Lymphoseek in head and neck cancer. In the NEO3-06 Phase 3 study, Lymphoseek localization to lymph nodes showed a strong correlation with a full regional lymph node dissection and pathology analysis with a low false negative rate, a priority in identifying sentinel nodes. Lymphoseek was also observed to home preferentially to pathology-positive nodes at a higher rate than pathology-negative nodes. These results suggest that Lymphoseek not only effectively targets sentinel lymph nodes, but further that its ability to highlight tumor-positive lymph nodes may be augmented mechanistically by the recruitment of macrophages to cancer-harboring lymph nodes.

An investigator-initiated study is currently underway at the University of California, San Diego (UCSD) to evaluate injection site pain between Lymphoseek and an alternative radiopharmaceutical that is commonly used in lymphatic mapping procedures. The study is designed to determine if patients receiving Lymphoseek experience the same or less pain following injection compared to radiolabeled sulfur colloid, and to measure the amount of discomfort that patients report during and after injection, as well as other characteristics of performance.

In July 2014, we amended our license agreement with UCSD for the exclusive world-wide rights to Lymphoseek. The amended license agreement is effective until the third anniversary of the expiration date of the longest-lived underlying patent. Under the terms of the license agreement, UCSD has granted us the exclusive rights to make, use, sell, offer for sale and import licensed products as defined in the agreement and to practice the defined licensed methods during the term of the agreement. We may also sublicense the patent rights, subject to certain sublicense terms as defined in the agreement. In consideration for the license rights, we agreed to make payments to UCSD upon successfully reaching certain clinical, regulatory and cumulative sales milestones, and a royalty on net sales of licensed products subject to a $25,000 minimum annual royalty. We also agreed to reimburse UCSD for all patent-related costs and to meet certain diligence targets.

We are currently pursuing registration of Lymphoseek in the European Union (EU). We submitted our Marketing Authorization Application (MAA) for Lymphoseek to the European Medicines Agency (EMA) in December 2012. In December 2013, the EMA provided updated feedback on the MAA as it continued its review. The updated feedback was limited to supplemental product specification data and the NEO3-06 Phase 3 study in head and neck cancer. In March 2014, we held an update meeting

with the EMA where we presented oral explanations to the Committee for Medicinal Products for Human Use (CHMP) relating to open questions on the Lymphoseek MAA. At the conclusion of the meeting, the CHMP informed Navidea that the Committee will continue with its review of the MAA and provided the Company with additional questions, which we are currently addressing. In April 2014, the Company announced its expectation that the CHMP would convene a meeting of the Scientific Advisory Group on Oncology (SAG-O) to discuss additional elements of the Lymphoseek clinical study in patients with head and neck cancer to provide an opportunity for Navidea and independent experts in head and neck cancer surgery to review clinical data in the MAA filing and discuss broad aspects of care for patients with head and neck cancer in Europe. Navidea expects that the SAG-O's opinion, though not binding, will be considered by the CHMP when it meets to review the Lymphoseek MAA later this year. During this process, the MAA remains active and the review clock will continue to be stopped while Navidea works with the CHMP to continue expanded discussions. A positive opinion for approval would enable commercialization in the EU subsequent to European Commission (EC) adoption of the CHMP opinion on a country-by-country basis in each member state, a process which could take several months. However, we cannot assure you that Lymphoseek will achieve regulatory approval in the EU or any market outside the U.S., or if approved, that it will achieve market acceptance in any market.

Manocept Platform

Navidea's Manocept platform is predicated on the ability to specifically target the CD206 mannose receptor expressed on macrophages. Macrophages play important roles in many disease states and are an emerging target in many diseases where diagnostic uncertainty exists. This flexible and versatile platform serves as an engine for purpose-built molecules that may enhance diagnostic accuracy, clinical decision-making and ultimately patient care, while offering the potential to utilize a breadth of diagnostic modalities, including SPECT, PET, intra-operative and/or optical-fluorescence detection, as well as potentially in the delivery of therapeutic compounds targeting macrophages and their role in a variety of immune- and inflammation-based disorders. The Company's FDA-approved precision diagnostic lymphatic mapping agent, Lymphoseek, is representative of the ability to successfully exploit this mechanism to develop powerful new products.

In February 2014, data utilizing compounds from our Manocept platform in models of rheumatoid arthritis (RA) were presented by representatives from The Ohio State University at a Keystone Symposia on Molecular Cell Biology of Macrophages in Human Disease. The studies demonstrate the ability of fluorescent Cy3-tilmanocept to identify and localize to disease-state macrophages when administered intravenously, enabling detection of immune-mediated arthritis in affected joints in vivo in mice. Results were confirmed using histopathology. The data highlighted the identification of immune-mediated inflammation seen in arthritic joints of arthritis-affected mice but not in control mice or un-affected joints within arthritis-affected mice. The imaging results in this study showed preferential localization of macrophages by Cy3-tilmanocept in affected joints with little to no localization in unaffected joints.

In April 2014, collaborators from the University of California, San Francisco presented results at the 2014 American Association for Cancer Research conference, highlighting the potential utility of imaging agents derived from the Manocept platform in identifying affected tissues and lymph nodes in patients with Kaposi's Sarcoma (KS). The investigators concluded that, based on the results obtained, labeled imaging agents from the CD206-targeting Manocept platform provide potential avenues to enhance diagnosis and staging in this disorder.

In July 2014, Navidea announced that it has formed a joint enterprise with Essex Woodlands-backed Rheumco, LLC, to develop and commercialize radiolabeled diagnostics and therapeutics for rheumatologic and arthritic diseases. The joint enterprise, called R-NAV, LLC, will combine Navidea's proprietary Manocept CD206 macrophage targeting platform and Rheumco's proprietary Tin-117m radioisotope technology to focus on leveraging the platforms across several indications with high unmet medical need:

1) Detection of RA initially using Tc-99m tilmanocept, commercially known as Lymphoseek,
2) Combination of the Manocept platform with Tin-117m for detection and treatment of RA,
3) Detection and treatment of human and veterinary osteoarthritis (OA) using the Tin-117m technology, and
4) Treatment of pediatric hemophilic arthropathy (PHA), a rare rheumatologic condition.

R-NAV will be initially funded primarily through a $4 million investment from Infinity Capital III, of Houston-based McRay Money Management, and other third-party private investors working closely with Essex Woodlands, and underpinning the technology contributions from Rheumco and Navidea. Navidea has committed an additional $1 million to support R-NAV's development efforts to be paid in equal installments over three years. In exchange for its cash, in-kind and technology contributions, Navidea has received both common units and Preferred Series A units of R-NAV and will initially own approximately 30% of the combined entity. Joint oversight of R-NAV is shared between Navidea, Rheumco, Infinity Capital III of Houston-based McRay Money Management, and the other investors. Navidea also has an option to acquire, at its sole

discretion prior to Phase 3 clinical study, imaging products derived from the Manocept platform, and therapeutic products combining Manocept agents from Navidea with the Tin-117m technology for commercialization.

Also in July 2014, the Company completed a license agreement with UCSD for the exclusive world-wide rights in all diagnostic and therapeutic uses of tilmanocept. The license agreement is effective until the third anniversary of the expiration date of the longest-lived underlying patent. Under the terms of the license agreement, UCSD has granted us the exclusive rights to make, use, sell, offer for sale and import licensed products as defined in the agreement and to practice the defined licensed methods during the term of the agreement. We may also sublicense the patent rights, subject to certain sublicense terms as defined in the agreement. In consideration for the license rights, we agreed to pay UCSD a license issue fee of $25,000 and license maintenance fees of $25,000 per year. We also agreed to make payments to UCSD upon successfully reaching certain clinical, regulatory and cumulative sales milestones, and a royalty on net sales of licensed products subject to a $25,000 minimum annual royalty. We also agreed to reimburse UCSD for all patent-related costs and to meet certain diligence targets.

The Company continues to evaluate emerging data in other disease states to define areas of focus, development pathways and partnering options to capitalize on the Manocept platform, including ongoing studies in KS and RA. The immune-inflammatory process is remarkably complex and tightly regulated with indicators that initiate, maintain and shut down the process. Macrophages are immune cells that play a critical role in the initiation, maintenance, and resolution of inflammation. They are activated and deactivated in the inflammatory process. Because macrophages may promote dysregulation that accelerates or enhances disease progression, diagnostic and therapeutic interventions that target macrophages may open new avenues for controlling inflammatory diseases (Fujiwara, et al., *"Macrophages in inflammation,"* Curr Drug Targets Inflamm Allergy 2005 June;4(3):281-6).

Impairment of the macrophage-driven disease mechanism is an area of increasing focus in medicine. The number of people affected by all the inflammatory diseases combined is estimated at more than 40 million in the United States and perhaps 700 million worldwide, making these macrophage-mediated diseases an area of remarkable clinical importance. There are many recognized disorders having macrophage involvement, including RA, atherosclerosis/vulnerable plaque, Crohn's disease, tuberculosis (TB), systemic lupus erythematosis, KS, and others that span clinical areas in oncology, autoimmunity, infectious diseases, cardiology, and inflammation. Data from studies using agents from the Manocept platform in RA, KS and TB were published in a special supplement, *Nature Outlook: Medical Imaging*, in *Nature's* October 31, 2013 issue. The supplement included a White Paper by Navidea entitled "*Innovations in receptor-targeted precision imaging at Navidea: Diagnosis up close and personal,"* focused on the Manocept platform.

We cannot assure you that further evaluation or development will be successful, that any Manocept platform product candidate will ultimately achieve regulatory approval, or if approved, the extent to which it will achieve market acceptance.

NAV4694

NAV4694 is a Fluorine-18 labeled precision radiopharmaceutical candidate for use in the imaging and evaluation of patients with signs or symptoms of AD and potentially also MCI. NAV4694 binds to beta-amyloid deposits in the brain that can then be imaged in PET scans. Amyloid plaque pathology is a required feature of AD and the presence of amyloid pathology is a supportive feature for diagnosis of probable AD. Patients who are negative for amyloid pathology do not have AD.

Based on the data accumulated to date, NAV4694 appears to have better sensitivity and specificity in detecting beta-amyloid than other agents in its category. Due to its high affinity for amyloid, improved contrast, and enhanced uptake in the amyloid-target regions of interest in the brain compared with low uptake in white matter background, better signal-to-noise ratios have been observed. Greater contrast may enable the ability to detect smaller amounts of amyloid and earlier identification of disease, as well as the opportunity to detect smaller changes in amyloid levels and monitor disease progression over time.

NAV4694 has been studied in rigorous pre-clinical studies and clinical trials in humans. Clinical studies through Phase 3 have included subjects with MCI, suspected AD patients, and healthy volunteers. Results suggest that NAV4694 has the potential ability to image patients quickly and safely with high sensitivity and specificity.

During 2013, we initiated a Phase 2b trial in subjects with MCI and a Phase 3 autopsy-based trial to support registration in the U.S. and the EU. During the first quarter of 2014, we reported data from a blinded read of over 160 cases in which NAV4694 showed sensitivity and specificity both in excess of 95%. Positive results were also reported from our Phase 2b trial in subjects with MCI, showing the agent's ability to identify beta-amyloid with a high confidence of diagnosis in these are early-stage patients for whom diagnostic uncertainty is often significant. These data build on prior work showing that NAV4694 can separate MCI patients with high beta amyloid who are likely to progress to AD from those who do not. To date, the product candidate appears to be safe and well-tolerated. We cannot assure you, however, that further clinical trials for this product will be successful, that the product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

In May 2014, the Board of Directors made the decision to refocus the Company's resources to better align the funding of our pipeline programs with the expected growth in Lymphoseek revenue. This realignment primarily involves reducing our near-term support for our neurological product candidates, including NAV4694, as we seek to secure a development partner or partners for these programs.

NAV5001

NAV5001 is a patented Iodine-123 labeled small molecule radiopharmaceutical used with SPECT imaging to identify the status of specific regions in the brains of patients suspected of having PD. The agent binds to the dopamine transporter (DAT) on the cell surface of dopaminergic neurons in the striatum and substantia nigra regions of the brain. Loss of these neurons is a hallmark of PD.

Results from clinical trials to date have demonstrated that NAV5001 has high affinity for DAT and rapid kinetics which enable the generation of clean images quickly, beginning within about 20 minutes after injection, while other agents have waiting periods from 4 to 24 hours before imaging can occur. In addition to its potential use as an aid in the differential diagnosis of PD and movement disorders, NAV5001 may also be useful in the diagnosis of Dementia with Lewy Bodies, one of the most common forms of dementia after AD.

In December 2013, we announced the initiation of our pivotal Phase 3 registration program to assess the safety and efficacy of NAV5001 as an aid in the differential diagnosis of Parkinsonian Syndromes from non-Parkinsonian tremor. This clinical study is focused on subjects with emerging symptoms in whom diagnostic uncertainty and unmet need are highest. Results from earlier trials using NAV5001 suggest that it is an effective, well-tolerated imaging agent. The agent's high affinity for DAT and resulting clear images can assist physicians in reaching an accurate diagnosis sooner, and the rapid kinetics with minimal time between injection and scanning and time in the SPECT scanner not only decrease patient exposure and but also facilitate increased efficiency with potential cost savings for the nuclear medicine facility. Reducing diagnostic uncertainty and error rates for patients with movement disorders who often exhibit similar clinical symptoms has the potential to afford great value, especially early in the initial clinical presentation, and may lead to improved clinical decision-making and patient management. We cannot assure you, however, that further clinical trials for this product will be successful, that the product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

In May 2014, the Board of Directors made the decision to refocus the Company's resources to better align the funding of our pipeline programs with the expected growth in Lymphoseek revenue. This realignment primarily involves reducing our near-term support for our neurological product candidates, including NAV5001, as we seek to secure a development partner for these programs.

NAV1800

NAV1800 is intended to aid in identifying a primary tumor, ascertaining tumor margins, or determining the extent and location of occult and metastatic tumor in patients with solid tumor cancers, such as colorectal cancer, ovarian cancer, prostate cancer, lung cancer and other cancers of epithelial origin. The detection of clinically occult tumor is intended to provide the surgeon with a more accurate assessment of the extent and location of disease, and therefore may impact the surgical and therapeutic management of the patient. In November 2013, we entered into a collaboration with investigators at the University of Alabama at Birmingham (UAB) to assess such diagnostic approaches in cancer patients. We continue to evaluate the technical, clinical and manufacturing parameters required for further exploitation in advance of initiating clinical activities under our collaboration with UAB. We cannot assure you that if further clinical trials for this product proceed, that they will be successful, that the product will achieve regulatory approval, or if approved, that it will achieve market acceptance.

Outlook

Following the U.S. approval of Lymphoseek in March 2013, the Company undertook the initial stages of product launch in the U.S. with our commercialization partner, Cardinal Health, in May 2013. We began reporting revenue from Lymphoseek beginning in the second quarter of 2013, though revenue for the second quarter consisted primarily of inventory stocking of Cardinal Health's nuclear pharmacies. As insight into the sales process with Lymphoseek grew over the initial quarters following launch, we announced our expectation for revenue to Navidea from Lymphoseek to be between $5 million and $6 million for 2014. We expect to update this guidance on a quarterly basis over the remainder of 2014 and are reiterating that guidance at this time. The Company currently believes Lymphoseek has the potential to achieve a market leadership position among lymphatic mapping agents in the U.S. by mid-2015.

Our operating expenses in recent years have been focused primarily on support of Lymphoseek, our Manocept platform, NAV4694 and NAV5001 product development, and to a lesser extent, on efforts related to NAV1800. We incurred approximately $10.3 million and $8.0 million in total on research and development activities during the six-month periods ended June 30, 2014 and 2013, respectively. Of the total amounts we have spent on research and development during those periods, excluding costs related to our internal research and development headcount and our general and administrative staff which we do not currently allocate among the various development programs that we have underway, we incurred out-of-pocket charges by program as follows:

	Six Months Ended June 30,	
Development Program	**2014**	**2013**
Lymphoseek	$ 1,047,298	$ 1,159,819
Manocept Platform	345,794	—
NAV4694	3,705,056	2,472,981
NAV5001	920,722	422,078
NAV1800	31,393	50,000

Due to the advancement of our efforts with Lymphoseek and our Manocept platform, offset by reductions in development of NAV4694, NAV5001, and NAV1800, we expect our total research and development expenses for 2014 to be in the range of approximately $15 million to $20 million. The levels of program expenditures will depend in part on efforts associated with advancing Lymphoseek and accelerating enrollment and other activities related to our NAV4694 program. In general, development expenses for Lymphoseek in 2014 are expected to decrease as compared to 2013. We also expect expenses for NAV4694, NAV5001 and NAV1800 to be reduced overall during the second half of 2014, commensurate with management of our available resources.

Lymphoseek was approved and indicated for use in lymphatic mapping in patients with breast cancer and melanoma by the FDA in March 2013, with expanded use of Lymphoseek indicated for guiding sentinel lymph node biopsy in head and neck cancer patients with squamous cell carcinoma of the oral cavity approval in June 2014. Although our marketing partner will bear the direct marketing, sales and distribution costs related to the sale of Lymphoseek, during 2014, we expect to incur ongoing costs to support product launch, general marketing efforts, and targeted high-volume account sales activities, as well as medical education-related and market outreach activities associated with Lymphoseek commercialization. We expect to incur additional development expenses related to supporting the MAA review of Lymphoseek in the EU, as well as the FDA review of our second Lymphoseek sNDA. Additionally, we anticipate that we will incur costs related to supporting the other product, regulatory, manufacturing and commercial activities related to the potential marketing registration and sale of Lymphoseek in other markets. We also expect to incur costs related to ongoing clinical development efforts to support potential label expansion for the use of Lymphoseek in additional cancer types. We cannot assure you that Lymphoseek will achieve regulatory approval in the EU or any other market outside the U.S., or if approved in those markets, that it will achieve market acceptance in the U.S. or any other market.

We are currently evaluating existing and emerging data on the potential use of Manocept-related agents in the diagnosis and disease-staging of disorders in which macrophages are involved, such as KS, RA, vulnerable plaque/atherosclerosis, TB and other disease states, to define areas of focus, development pathways and partnering options to capitalize on the Manocept platform. In the near-term, our development efforts with respect to the Manocept platform will likely be limited to such evaluations. We will also be evaluating potential funding and other resources required for continued development, regulatory approval and commercialization of any Manocept platform product candidates that we identify for further development, and potential options for advancing development. We cannot assure you that further evaluation or development will be successful,

that any Manocept platform product candidate will ultimately achieve regulatory approval, or if approved, the extent to which it will achieve market acceptance.

We expect to reduce our expenses for NAV4694 and NAV5001 during the second half of 2014 following the May 2014 Board decision to refocus the Company's efforts on Lymphoseek and Manocept platform development. During 2013, we were awarded two SBIR grants from the NIH in connection with our clinical programs for NAV4694, the first to support our Phase 3 trial of NAV4694 as an aid in the differential diagnosis of AD, and the second to support our Phase 2b trial of NAV4694 as a diagnostic imaging agent that may aid physicians in identifying individuals with MCI who are at greatest risk of progressing to AD. These SBIR grants have the potential to provide up to $1.8 million and $2.3 million in support, respectively, if fully funded, through the conclusion of the clinical studies. Currently, neither NAV4694 nor NAV5001 is expected to contribute revenue to the Company until 2017, at the earliest. We cannot assure you that further clinical trials for these products will be successful, that the agents will ultimately achieve regulatory approval, or if approved, the extent to which they will achieve market acceptance.

We continue to evaluate potential business, clinical, manufacturing, development and regulatory pathways forward for the NAV1800 program. In the near-term, our development efforts related to NAV1800 will likely be limited to those which we are able to fund through external sources such as the SBIR grant from the NIH we were awarded in 2012. We cannot assure you that we will be able to complete satisfactory development arrangements or obtain incremental financing to fund the NAV1800 program and cannot guarantee that such arrangements could be obtained on a timely basis on terms acceptable to us, or at all. We also cannot assure you that further clinical development will be successful, that the agent will ultimately achieve regulatory approval, or if approved, that it will achieve market acceptance.

Finally, if we are successful in identifying and securing additional product candidates to augment our product development pipeline, we will likely incur significant additional expenses related to furthering the development of such products.

Results of Operations

Three Months Ended June 30, 2014 and 2013

Net Sales and Margins. Net sales of Lymphoseek realized by Navidea were $1.0 million during the second quarter of 2014, as compared to $128,000 during the second quarter of 2013. The increase was primarily due to sales starting in late April of 2013, coupled with an increase in the initial transfer price to Cardinal beginning in the second quarter of 2014. Gross margins on net sales were 74% and 18% for the second quarters of 2014 and 2013, respectively. Cost of goods sold included post-production testing activities required by regulatory authorities, which are charged as one-time period costs, and a royalty on net sales payable under our license agreement with UCSD.

Grant Revenue. During the second quarter of 2014, we recognized $28,000 of grant revenue as compared to $67,000 in the second quarter of 2013 related to SBIR grants from the NIH supporting NAV4694 and NAV1800 development. The net decrease was primarily due to lower NAV1800 grants offset by higher NAV4694 grants. During the second quarter of 2014, Navidea notified the NIH that the aims of the first phase of the two NAV4694 grants had been met and initiated activities regarding the second phase of funding under these grants.

Research and Development Expenses. Research and development expenses increased $735,000, or 17%, to $5.1 million during the second quarter of 2014 from $4.4 million during the same period in 2013. The increase was primarily due to net increases in drug project expenses related to (i) increased NAV4694 development costs of $395,000 including increased clinical trial costs coupled with increased manufacturing-related activities, (ii) increased Manocept platform development costs of $179,000, and (iii) increased NAV5001 development costs of $117,000 including increased manufacturing-related activities offset by decreased clinical trial costs.

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased $738,000, or 18%, to $4.9 million during the second quarter of 2014 from $4.2 million during the same period in 2013. The net increase was primarily due to expenses related to the separation of our CEO, Dr. Mark Pykett, of $1.2 million, coupled with increased professional fees and facilities transition and other headcount-related costs, offset by decreased investor relations and out-of-pocket marketing costs related to the commercial launch of Lymphoseek.

Other Income (Expense). Other expense, net, was $1.0 million during the second quarter of 2014 as compared to $1.8 million during the same period in 2013. Interest expense increased $449,000 to $914,000 during the second quarter of 2014 from $465,000 for the same period in 2013, primarily due to interest related to the Oxford and GECC/Midcap Notes in 2014, offset by interest related to the Hercules Note and Platinum credit facility in 2013. Of this interest expense, $195,000 and $121,000

in the second quarter of 2014 and 2013, respectively, was non-cash in nature related to the amortization of debt issuance costs and non-cash debt discounts related to the Oxford, GECC/MidCap, and Hercules Notes. For the second quarter of 2014, we recorded non-cash expense of $92,000 related to changes in the estimated fair value of financial instruments. During the second quarter of 2013, we recorded losses on extinguishment of debt of $943,000 related to modification of the Platinum credit facility and $429,000 upon paying off the balance of the Hercules Note.

Six Months Ended June 30, 2014 and 2013

Net Sales and Margins. Net sales of Lymphoseek realized by Navidea were $1.7 million during the first six months of 2014, as compared to $128,000 during the first six months of 2013. The increase was primarily due to sales starting in late April of 2013, coupled with an increase in the initial transfer price to Cardinal beginning in the second quarter of 2014. Gross margins on net sales were 72% and 18% for the first six months of 2014 and 2013, respectively. Cost of goods sold included post-production testing activities required by regulatory authorities, which are charged as one-time period costs, and a royalty on net sales payable under our license agreement with UCSD.

Grant Revenue. During the first six months of 2014, we recognized $154,000 of grant revenue as compared to $67,000 in the first six months of 2013 related to SBIR grants from the NIH supporting NAV4694 and NAV1800 development. The net increase was primarily due to higher NAV4694 grants offset by lower NAV1800 grants. During the second quarter of 2014, Navidea notified the NIH that the aims of the first phase of the two NAV4694 grants had been met and initiated activities regarding the second phase of funding under these grants.

Research and Development Expenses. Research and development expenses increased $2.3 million, or 29%, to $10.3 million during the first six months of 2014 from $8.0 million during the same period in 2013. The increase was primarily due to net increases in drug project expenses related to (i) increased NAV4694 development costs of $1.2 million including increased manufacturing-related activities coupled with increased clinical trial costs, (ii) increased NAV5001 development costs of $499,000 including increased manufacturing-related activities coupled with increased clinical trial costs, and (iii) increased Manocept platform development costs of $346,000; offset by (iv) decreased Lymphoseek development costs of $113,000. The net increase in research and development expenses also included increased compensation including incentive-based awards and other expenses related to net increased headcount required for expanded development efforts over the prior year, coupled with employee separation costs related to the second quarter 2014 reduction in force.

Selling, General and Administrative Expenses. Selling, general and administrative expenses increased $1.3 million, or 17%, to $8.8 million during the first six months of 2014 from $7.5 million during the same period in 2013. The net increase was primarily due to expenses related to the separation of our CEO, Dr. Mark Pykett, of $1.2 million, coupled with increased medical education costs to support Lymphoseek, professional fees, symposia and industry association support expenses, and facilities transition, travel and other headcount-related costs, offset by decreased investor relations and out-of-pocket marketing costs related to the commercial launch of Lymphoseek.

Other Income (Expense). Other expense, net, was $4.2 million during the first six months of 2014 as compared to $2.2 million during the same period in 2013. Interest expense increased $1.0 million to $1.9 million during the first six months of 2014 from $828,000 for the same period in 2013, primarily due to interest related to the Oxford and GECC/Midcap Notes in 2014, offset by interest related to the Hercules Note and Platinum credit facility in 2013. Of this interest expense, $437,000 and $243,000 in the first six months of 2014 and 2013, respectively, was non-cash in nature related to the amortization of debt issuance costs and non-cash debt discounts related to the Oxford, GECC/MidCap, and Hercules Notes. During the first six months of 2014, we recorded a loss on extinguishment of debt of $2.6 million related to paying off the balance of the GECC/MidCap Note. During the first six months of 2013, we recorded losses on extinguishment of debt of $943,000 related to modification of the Platinum credit facility and $429,000 upon paying off the balance of the Hercules Note. For the first six months of 2014, we recorded non-cash income of $300,000 related to changes in the estimated fair value of financial instruments.

Liquidity and Capital Resources

Cash balances decreased to $17.5 million at June 30, 2014 from $32.9 million at December 31, 2013. The net decrease was primarily due to cash used to fund our operations, mainly for research and development activities, of $17.6 million, and purchases of equipment of $1.1 million, offset by a net increase of $3.2 million related to the commencement of the Oxford Notes and the extinguishment of the GECC/Midcap Notes. The current ratio remained steady at 3.3:1 as of June 30, 2014 and December 31, 2013.

Operating Activities. Cash used in operations increased $2.9 million to $17.6 million during the first half of 2014 compared to $14.7 million used during the same period in 2013.

Accounts receivable decreased to $487,000 at June 30, 2014 from $1.2 million at December 31, 2013, primarily due to decreased amounts due from the landlord of our Dublin office space for tenant improvements, offset by increased receivables due from Cardinal Health resulting from the increase in sales of Lymphoseek.

Inventory levels decreased to $1.9 million at June 30, 2014 from $2.2 million at December 31, 2013, primarily due to finished goods inventory sold coupled with materials inventory consumed for product testing and development purposes. We expect inventory levels to increase over the remainder of 2014 as we produce additional Lymphoseek inventory to meet increasing demand.

Prepaid expenses and other current assets decreased to $701,000 at June 30, 2014 from $1.0 million at December 31, 2013, primarily due to amortization of prepaid insurance and annual FDA user fees.

Accounts payable decreased to $1.7 million at June 30, 2014 from $2.4 million at December 31, 2013, primarily due to normal fluctuations in timing of receipt and payment of invoices. Accrued liabilities and other current liabilities decreased to $3.7 million at June 30, 2014 from $4.8 million at December 31, 2013, primarily due to decreased accruals of NAV4694 development costs and net decreases in compensation-related accruals. Our payable and accrual balances will continue to fluctuate but will likely decrease overall as we decrease our level of development activity related to NAV4694, NAV5001, NAV1800, and other potential product candidates following our second quarter 2014 realignment of priorities, offset by planned increases in development activity related to the Manocept platform and commercial activity related to Lymphoseek.

Investing Activities. Investing activities used $1.1 million during the first half of 2014 compared to using $689,000 during the same period in 2013. Capital expenditures of $1.1 million during the first half of 2014 were primarily for leasehold improvements, office furniture and NAV4694 production equipment. Capital expenditures of $672,000 during the first half of 2013 were primarily for equipment to be used in the production of NAV4694 and Lymphoseek, software, and computers. We expect our overall capital expenditures for the remainder of 2014 will be lower than for the same period in 2013.

Financing Activities. Financing activities provided $3.2 million during the first half of 2014 compared to $32.0 million provided during the same period in 2013. The $3.2 million provided by financing activities in the first half of 2014 consisted primarily of proceeds from the Oxford Notes of $30.0 million, offset by payment of the principal and fees related to the extinguishment of the GECC/Midcap Notes of $26.7 million. The $32.0 million provided by financing activities in the first half of 2013 consisted primarily of proceeds from notes payable of $29.0 million and issuance of common stock of $11.3 million, offset by principal payments on our notes payable of $5.9 million, payment of debt issuance costs of $1.1 million, payment of common stock issuance costs of $668,000, and payment of minimum tax withholdings related to stock-based compensation of $659,000.

Oxford Debt

In March 2014, we executed a Loan and Security Agreement the (Oxford Loan Agreement) with Oxford Finance, LLC (Oxford), providing for a loan to the Company of $30 million. Pursuant to the Oxford Loan Agreement, we issued Oxford: (1) Term Notes in the aggregate principal amount of $30,000,000, bearing interest at 8.5% (the Oxford Notes), and (2) Series KK warrants to purchase an aggregate of 391,000 shares of our common stock at an exercise price of $1.918 per share, expiring in March 2021 (the Series KK warrants). We will make monthly payments of interest only commencing on April 1, 2014, and continuing on the first calendar day of each successive month thereafter through and including the first calendar day of the month immediately preceding April 1, 2015 (the Amortization Date, which may be extended to April 1, 2016, and again to April 1, 2017, if the Company achieves certain milestones associated with the Company's Lymphoseek product). Commencing on the Amortization Date, and continuing on the first calendar day of each month thereafter, the Company will make consecutive equal monthly payments of principal and interest, in arrears, to the lenders then party to the Oxford Loan Agreement based on a repayment schedule of 48 months if the Amortization Date is April 1, 2015, 36 months if the Amortization Date is April 1, 2016, and 24 months if the Amortization Date is April 1, 2017. All unpaid principal, and accrued and unpaid interest, with respect to the Oxford Notes is due and payable in full on March 1, 2019. We will also make a final payment to the lenders in an aggregate amount equal to the original principal amount of the loan multiplied by 7.95% if the Amortization Date is April 1, 2015; 8.95% if the Amortization Date is extended to April 1, 2016; or 9.95% if the Amortization Date is extended to April 1, 2017. The Oxford Notes are collateralized by a security interest in substantially all of the Company's assets except for intellectual property, as to which the security interest is in rights to income or proceeds from the sale or licensing thereof. The Oxford Loan Agreement requires that the Company adhere to certain affirmative and negative covenants, including, without limitation, financial reporting requirements and a prohibition against the incurrence of

indebtedness, or creation of additional liens, other than as specifically permitted by the terms of the Oxford Loan Agreement. As of June 30, 2014, the outstanding principal balance of the Oxford Loan Agreement was $30.0 million, and we were in compliance with all covenants of the Oxford Loan Agreement.

In July 2014, in connection with entering into the R-NAV joint enterprise, we entered into an amendment to the Oxford Loan Agreement that amended certain covenants to permit our investment in R-NAV, and R-NAV entered into a Subordination Agreement with Oxford to subordinate our indebtedness to R-NAV to our obligations under the Oxford Loan Agreement.

GECC/MidCap Debt

Also in March 2014, in connection with the consummation of the Oxford Loan Agreement, we repaid all amounts outstanding under the General Electric Capital Corporation (GECC) and MidCap Financial SBIC, LP (MidCap) Notes for a payoff amount of $26.7 million, which included payments of $500,000 as a pre-payment fee and $1,000,000 as an end-of-term final payment fee.

Platinum Credit Facility

In March 2014, in connection with entering into the Oxford Loan Agreement, we entered into a second amendment to the Platinum-Montaur Life Sciences, LLC (Platinum) Loan Agreement (the Second Platinum Amendment). Concurrent with the execution of the Second Platinum Amendment, the Company delivered an Amended and Restated Promissory Note (the Second Amended Platinum Note) to Platinum, which amended and restated the First Amended Platinum Note. The Second Amended Platinum Note adjusted the interest rate to the greater of (i) the United States prime rate as reported in The Wall Street Journal plus 6.75%, (ii) 10.0%, and (iii) the highest rate of interest then payable by the Company pursuant to the Oxford Loan Agreement plus 0.125%. Navidea, Platinum, and Oxford also entered into a Subordination Agreement, providing for subordination of the Company’s indebtedness under the Platinum Loan Agreement to the Company’s indebtedness under the Oxford Loan Agreement, among other customary terms and conditions. As of June 30, 2014, the remaining outstanding principal balance of the Second Amended Platinum Note was approximately $3.2 million, with $31.8 million still currently available under the credit facility.

Series B Convertible Preferred Stock

During the six-month period ended June 30, 2014, Platinum converted 4,422 shares of their Series B Preferred Stock into 14,459,940 shares of our common stock under the terms of the Series B Preferred Stock. As of June 30, 2014, there are 3,143 shares of Series B Preferred Stock outstanding which are convertible into 10,277,610 shares of our common stock.

Summary

Our future liquidity and capital requirements will depend on a number of factors, including our ability to complete the development and commercialization of new products, our ability to achieve market acceptance of our products, our ability to monetize our investment in non-core technologies, our ability to obtain milestone or development funds from potential development and distribution partners, regulatory actions by the FDA and international regulatory bodies, the ability to procure additional pipeline development opportunities and required financial resources, and intellectual property protection.

In May 2014, the Board of Directors made the decision to refocus the Company's resources to better align the funding of our pipeline programs with the expected growth in Lymphoseek revenue. This realignment primarily involves reducing our near-term support for our two neurological product candidates, NAV4694 and NAV5001, as we seek to secure a development partner for these programs. The Company is also working to establish new sources of non-dilutive funding, including collaborations that can augment the balance sheet as the Company works to reduce spending to levels that can be increasingly offset by growing Lymphoseek revenue. In particular, substantial progress on the Manocept platform has resulted in several promising opportunities, including our recently announced R-NAV venture, which we believe may further expand the Company's pipeline but which require less near-term funding from Navidea than the two ongoing Phase 3 neurological development programs. Although management believes that it will be able to achieve these objectives, they are subject to a number of variables beyond our control, including the nature and timing of any partnering opportunities, the ability to modify contractual commitments made in connection with these programs, and the timing and expense associated with suspension or alteration of clinical trials, and consequently we cannot assure you that we will be able to achieve our objective of bringing our expenses in line with our revenues, and we may need to seek additional debt or equity financing if we cannot achieve that objective in a timely manner.

We believe that our current cash balance, our credit facility with Platinum, our projected revenue derived from U.S. sales of Lymphoseek, our ability to control expenses, the potential for partnership funding, the potential to access debt or royalty

instruments, and the potential to access capital markets through our shelf registration (though we have no current intention to raise additional equity capital using the shelf registration), provide us with adequate financial resources to continue to fund our business plan for the foreseeable future. However, we cannot assure you that Lymphoseek will generate our expected levels of sales and cash flow. We will continue to evaluate our time lines, strategic needs, and balance sheet requirements. We cannot assure you that if we attempt to raise additional capital through debt, royalty, equity or otherwise, we will be successful in doing so on terms acceptable to the Company, or at all. We also cannot assure you that we will be able to gain access and/or be able to execute on securing new development opportunities, successfully obtain regulatory approval for and commercialize new products, achieve significant product revenues from our products, or achieve or sustain profitability in the future.

Recent Accounting Developments

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, *Revenue from Contracts with Customers,* which supersedes nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is built on the contract between a vendor and a customer for the provision of goods and services. It attempts to depict the exchange of rights and obligations between the parties in the pattern of revenue recognition based on the consideration to which the vendor is entitled. To accomplish this objective, ASU 2014-09 requires five basic steps: (i) identify the contract with the customer, (ii) identify the performance obligations in the contract, (iii) determine the transaction price, (iv) allocate the transaction price to the performance obligations in the contract, (v) recognize revenue when (or as) the entity satisfies a performance obligation. Entities will generally be required to make more estimates and use more judgment than under current guidance, which will be highlighted for users through increased disclosure requirements. ASU 2014-09 is effective for public entities for annual periods beginning after December 15, 2016, including interim periods therein. Three basic transition methods are available - full retrospective, retrospective with certain practical expedients, and a cumulative effect approach. Early adoption is prohibited. We are currently evaluating the impact of our pending adoption of ASU 2014-09 on our consolidated financial statements and have not yet determined the method by which we will adopt the standard in 2017.

In June 2014, the FASB issued ASU No. 2014-12, *Compensation-Stock Compensation.* ASU 2014-12 requires that a performance target included in a share-based payment award that affects vesting and that could be achieved after the requisite service period be treated as a performance condition. As such, the performance target should not be reflected in estimating the grant-date fair value of the award. Compensation cost should be recognized in the period in which it becomes probable that the performance target will be achieved and should represent the compensation cost attributable to the period(s) for which the requisite service has already been rendered. If the performance target becomes probable of being achieved before the end of the requisite service period, the remaining unrecognized compensation cost should be recognized prospectively over the remaining requisite service period. The total amount of compensation cost recognized during and after the requisite service period should reflect the number of awards that are expected to vest and should be adjusted to reflect those awards that ultimately vest. The requisite service period ends when the employee can cease rendering service and still be eligible to vest in the award if the performance target is achieved. ASU 2014-12 is effective for annual periods beginning after December 15, 2015, including interim periods therein. Earlier adoption is permitted. Entities may apply the amendments in ASU 2014-12 either (a) prospectively to all awards granted or modified after the effective date or (b) retrospectively to all awards with performance targets that are outstanding as of the beginning of the earliest annual period presented in the financial statements and to all new or modified awards thereafter. If retrospective transition is adopted, the cumulative effect of applying ASU 2014-12 as of the beginning of the earliest annual period presented in the financial statements should be recognized as an adjustment to the opening retained earnings balance at that date. Additionally, if retrospective transition is adopted, an entity may use hindsight in measuring and recognizing the compensation cost. We do not expect the adoption of ASU 2014-12 to have a material effect on our consolidated financial statements.

Critical Accounting Policies

We base our management's discussion and analysis of financial condition and results of operations, as well as disclosures included elsewhere in this Quarterly Report on Form 10-Q, upon our consolidated financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. We describe our significant accounting policies in the notes to the audited consolidated financial statements contained in our Annual Report on Form 10-K. We include within these policies our "critical accounting policies." Critical accounting policies are those policies that are most important to the preparation of our consolidated financial statements and require management's most subjective and complex judgment due to the need to make estimates about matters that are inherently uncertain. Changes in estimates and assumptions based upon actual results may have a material impact on our results of operations and/or financial condition.

Revenue Recognition. We currently generate revenue primarily from sales of Lymphoseek. Our standard shipping terms are FOB shipping point, and title and risk of loss passes to the customer upon delivery to a carrier for shipment from Cardinal

Health's national distribution center to another point of destination. We generally recognize sales revenue related to sales of our products when the products are shipped. Our customers have no right to return products purchased in the ordinary course of business.

We earn additional revenues based on a percentage of the actual net revenues achieved by Cardinal Health on sales to end customers made during each fiscal year. The amount we charge Cardinal Health related to end customer sales of Lymphoseek are subject to a retroactive annual adjustment. To the extent that we can reasonably estimate the end-customer prices received by Cardinal Health, we record sales based upon these estimates at the time of sale. If we are unable to reasonably estimate end customer sales prices related to products sold, we record revenue related to these product sales at the minimum (i.e., floor) price provided for under our distribution agreement with Cardinal Health.

We generate additional revenue from grants to support various product development initiatives. We generally recognize grant revenue when expenses reimbursable under the grants have been incurred and payments under the grants become contractually due.

Research and Development. Research and development (R&D) expenses include both internal R&D activities and external contracted services. Internal R&D activity expenses include salaries, benefits, and stock-based compensation, as well as travel, supplies, and other costs to support our R&D staff. External contracted services include clinical trial activities, chemistry, manufacturing and control-related activities, and regulatory costs. R&D expenses are charged to operations as incurred. We review and accrue R&D expenses based on services performed and rely upon estimates of those costs applicable to the stage of completion of each project.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We base these estimates and assumptions upon historical experience and existing, known circumstances. Actual results could differ from those estimates. Specifically, management may make significant estimates in the following areas:

- *Stock-Based Compensation.* Stock-based payments to employees and directors, including grants of stock options and restricted stock, are recognized in the statements of operations based on their estimated fair values on the date of grant. The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model to value share-based payments and the portion that is ultimately expected to vest is recognized as compensation expense over either (1) the requisite service period or (2) the estimated performance period. The determination of fair value using the Black-Scholes option pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables, including expected stock price volatility, risk-free interest rate, expected dividends and projected employee stock option behaviors. We estimate the expected term based on the contractual term of the awards and employees' exercise and expected post-vesting termination behavior. The restricted stock awards are valued based on the closing stock price on the date of grant and amortized ratably over the estimated life of the award.

  Since stock-based compensation is recognized only for those awards that are ultimately expected to vest, we have applied an estimated forfeiture rate to unvested awards for the purpose of calculating compensation cost. These estimates will be revised, if necessary, in future periods if actual forfeitures differ from estimates. Changes in forfeiture estimates impact compensation cost in the period in which the change in estimate occurs.

- *Inventory Valuation.* We value our inventory at the lower of cost (first-in, first-out method) or market. Our valuation reflects our estimates of excess and obsolete inventory as well as inventory with a carrying value in excess of its net realizable value. Write-offs are recorded when product is removed from saleable inventory. We review inventory on hand at least quarterly and record provisions for excess and obsolete inventory based on several factors, including current assessment of future product demand, anticipated release of new products into the market and product expiration. Our industry is characterized by rapid product development and frequent new product introductions. Regulations regarding use and shelf life, product recalls and variation in product utilization all impact the estimates related to excess and obsolete inventory.

- *Fair Value of Derivative Instruments.* Derivative instruments embedded in contracts, to the extent not already a free-standing contract, are bifurcated and accounted for separately. All derivatives are recorded on the consolidated balance sheets at fair value in accordance with current accounting guidelines for such complex financial instruments. Unrealized gains and losses on the derivatives are classified in other expenses as a change in derivative liabilities in

the statements of operations. We do not use derivative instruments for hedging of market risks or for trading or speculative purposes.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk. As of June 30, 2014, our $17.5 million in cash was primarily invested in interest-bearing money market accounts. Due to the low interest rates being realized on these accounts, we believe that a hypothetical 10% increase or decrease in market interest rates would not have a material impact on our consolidated financial position, results of operations or cash flows.

We also have exposure to changes in interest rates on our variable-rate debt obligations. As of June 30, 2014, the interest rate on certain of our debt obligations was based on the U.S. prime rate. Based on the amount of our variable-rate borrowings at June 30, 2014, which totaled approximately $3.2 million, an immediate one percentage point increase in the U.S. prime rate would increase our annual interest expense by approximately $32,000. This estimate assumes that the amount of variable rate borrowings remains constant for an annual period and that the interest rate change occurs at the beginning of the period. Because our debt obligations are currently subject to the minimum interest rates defined in the loan agreements, a decrease in the U.S. prime rate would not affect our annual interest expense.

Foreign Currency Exchange Rate Risk. We do not currently have material foreign currency exposure related to our assets as the majority are denominated in U.S. currency and our foreign-currency based transaction exchange risk is not material. For the six months ended June 30, 2014 and 2013, we recorded foreign currency transaction gains (losses) of approximately $6,000 and $(9,000), respectively.

Equity Price Risk. We do not use derivative instruments for hedging of market risks or for trading or speculative purposes. Derivative instruments embedded in contracts, to the extent not already a free-standing contract, are bifurcated and accounted for separately. All derivatives are recorded on the consolidated balance sheet at fair value in accordance with current accounting guidelines for such complex financial instruments. The fair value of our warrant liabilities is determined using various inputs and assumptions, the majority of which are defined and fixed by the warrant agreement, including the price of Company stock. As of June 30, 2014, we had approximately $7.7 million of derivative liabilities recorded on our balance sheet related to outstanding Series JJ warrants. Due to the fixed inputs defined by the warrant agreement, a hypothetical 50% change in our stock price would have no effect on the value of our derivative liabilities.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized, and reported within the specified time periods. As a part of these controls, our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we evaluated the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act) as of June 30, 2014. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure. Based on our evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of the end of the period covered by this report, our disclosure controls and procedures are adequately designed and are effective.

Our management, including our Chief Executive Officer and Chief Financial Officer, understands that our disclosure controls and procedures do not guarantee that all errors and all improper conduct will be prevented. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute assurance that the objectives of the control system are met. Further, a design of a control system must reflect the fact that there are resource constraints, and the benefit of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of improper conduct, if any, have been detected. These inherent limitations include the realities that judgments and decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more persons, or by management override of the control. Further, the design of any system of controls is

also based in part upon assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate. Because of the inherent limitations of a cost-effective control system, misstatements due to error or fraud may occur and may not be detected.

Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

- pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the Company are being made only in accordance with authorization of management and directors of the Company; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Changes in Control Over Financial Reporting

During the quarter ended June 30, 2014, there were no changes in our internal control over financial reporting that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1A. Risk Factors

There have been no material changes to the Company's risk factors as previously reported in the Company's Annual Report on Form 10-K for the year ended December 31, 2013, filed with the SEC on March 14, 2014.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

(a) During the three-month period ended June 30, 2014, we issued 850,200 shares of our common stock to Platinum in exchange for 260 shares of our Series B Convertible Preferred Stock in connection with Platinum’s exercise of its conversion option pursuant to the terms of our Series B Convertible Preferred Stock. The conversion terms for the issuances during the period was 3,270 shares of our common stock in exchange for each share of our Series B Convertible Preferred Stock. The issuances of these securities were exempt from registration under Section 3(a)(9) of the Securities Act.

(b) There were no repurchases of our common stock during the three-month period ended June 30, 2014.

Item 6. Exhibits

10.1	Amended and Restated License Agreement, dated July 14, 2014, between the Company and the Regents of the University of California (portions of this Exhibit have been omitted pursuant to a request for confidential treatment and have been filed separately with the United States Securities and Exchange Commission).*
10.2	Termination of License Agreement, dated July 14, 2014, between the Company and the Regents of the University of California.*
10.3	License Agreement, dated July 14, 2014, between the Company and the Regents of the University of California (portions of this Exhibit have been omitted pursuant to a request for confidential treatment and have been filed separately with the United States Securities and Exchange Commission).*
10.4	First Amendment to Loan and Security Agreement, dated July 15, 2014, between the Company and Oxford Finance, LLC.*
10.5	Subordination Agreement, dated July 15, 2014, between Oxford Finance, LLC and R-NAV, LLC.*
10.6	Consulting Agreement, dated July 28, 2014, between the Company and Montaur Capital Partners, LLC.*
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
32.1	Certification of Chief Executive Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.**
32.2	Certification of Chief Financial Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.**
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema Document*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

* Filed herewith.
** Furnished herewith.

Items 1, 3, 4 and 5 are not applicable and have been omitted.

SIGNATURES

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

NAVIDEA BIOPHARMACEUTICALS, INC.
(the Company)
August 11, 2014

By: /s/ Michael M. Goldberg

Michael M. Goldberg, M.D.
Interim Chief Executive Officer
(duly authorized officer; principal executive officer)

By: /s/ Brent L. Larson

Brent L. Larson
Executive Vice President and Chief Financial Officer
(principal financial and accounting officer)

INDEX TO EXHIBITS

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101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document*

* Filed herewith.

** Furnished herewith.

Certain confidential portions of this Exhibit, indicated by [*], have been omitted pursuant to Rule 24b-2 of the Securities Act of 1934. The omitted materials have been filed separately with the U.S. Securities and Exchange Commission.

AMENDED AND RESTATED

LICENSE AGREEMENT

BETWEEN

NAVIDEA BIOPHARMACEUTICALS, INC.

AND

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

FOR

CASE NO. SD1998-088

TABLE OF CONTENTS

LICENSE AGREEMENT

This agreement ("Agreement") is made by and between Navidea Biopharmaceuticals, Inc., a Delaware corporation having an address at 5600 Blazer Parkway, Suite 200, Dublin, OH 43017-1367 ("LICENSEE") and The Regents of the University of California, a California corporation having its statewide administrative offices at 1111 Franklin Street, Oakland, California 94607-5200 ("UNIVERSITY"), represented by its San Diego campus having an address at University of California, San Diego, Technology Transfer Office, Mail Code 0910, 9500 Gilman Drive, La Jolla, California 92093-0910 ("UCSD").

The following agreements ("Original Agreements"): a License Agreement effective January 26, 2002 (UC Control No. 2002-03-0237), an Amendment No. 1 effective May 27, 2003 (UC Control No. 2006-03-0237 (REVA)), an Amendment No. 2 effective February 1, 2006 (UC Control No.2006-03-0237 (REVB)), and an Amendment No. 3 effective August 16, 2011 (UC Control No. 2006-03-0237(REVC)) are hereby amended and restated in their entirety under this Agreement as of the date of the last signature (Effective Date").

RECITALS

WHEREAS, LICENSEE previously entered a license agreement UCSD Control #2002-03-0237, effective January 26, 2002 as Neoprobe Corporation for the commercial development of the Inventions for the Field and Term defined in the #2002-03-0237;

WHEREAS, LICENSEE changed its name from Neoprobe Corporation to Navidea Biopharmaceuticals, Inc. effective January 5, 2012;

WHEREAS, the invention disclosed in UCSD Disclosure Docket No. SD1998-088 and titled "Macromolecular Carrier for Drug and Diagnostic Agent Delivery" ("Invention"), were made in the course of research at UCSD by Dr. David Vera (hereinafter the "Inventor") and are covered by Patent Rights as defined below;

WHEREAS, the research was sponsored in part by the Government of the United States of America and as a consequence this license is subject to overriding obligations to the Federal Government under 35 U.S.C. §§ 200-212 and applicable regulations;

WHEREAS, the Inventor is an employee of UCSD, and they are obligated to assign all of their right, title and interest in the Invention to UNIVERSITY;

WHEREAS, UNIVERSITY provided to LICENSEE a copy of a representation that the Inventor, to the extent that he is actually aware as of the date of signing of the representation, has not

assigned said rights to a party other than The Regents of the University of California, and has not licensed said rights to any third party;

WHEREAS, UNIVERSITY is desirous that the Invention be developed and utilized to the fullest possible extent so that its benefits can be enjoyed by the general public;

WHEREAS, LICENSEE is desirous of obtaining certain rights from UNIVERSITY for commercial development, use, and sale of the Invention, and the UNIVERSITY is willing to grant such rights;

WHEREAS, LICENSEE and UNIVERSITY both desire for their mutual benefit to extend the Term (as defined below) of the Agreement beyond the expiration date of the Patent Rights (as defined below); and

WHEREAS, LICENSEE understands that, subject to the provisions of Article 10.2, UNIVERSITY may publish or otherwise disseminate information concerning the Invention and Technology (as defined below) at any time and that LICENSEE is paying consideration thereunder for its early access to the Invention and Technology, not continued secrecy therein.

NOW, THEREFORE, the parties agree:

ARTICLE 1. DEFINITIONS

The terms, as defined herein, shall have the same meanings in both their singular and plural forms.

1.1 "Affiliate" means any corporation or other business entity which is bound in writing by LICENSEE to the terms set forth in this Agreement and in which LICENSEE owns or controls, directly or indirectly, at least twenty percent (20%) of the outstanding stock or other voting rights entitled to elect directors, or in which LICENSEE is owned or controlled directly or indirectly by at least twenty percent (20%) of the outstanding stock or other voting rights entitled to elect directors; but in any country where the local law does not permit foreign equity participation of at least twenty percent (20%), then an "Affiliate" includes any company in which LICENSEE owns or controls or is owned or controlled by, directly or indirectly, the maximum percentage of outstanding stock or voting rights permitted by local law.

1.2 "Combination Product" means any product which is a Licensed Product (as defined below) and contains other product(s) or product component(s) that is not an excipient, diluant, adjuvant, buffer, labeling agent(s) such as radioisotope and fluorescent tag, and the like and (i) does not use Invention, Technology or Patent Rights (as defined below); (ii) the sale, use or import by itself does not contribute to or induce the infringement of Patent Rights; (iii) is sold separately by LICENSEE, its Sublicensee (as defined below) or an Affiliate; and (iv) enhances the market price of the final product(s) sold, used or imported by LICENSEE, its Sublicensee, or an Affiliate.

1.3 “Distributor” means a third party that is not a Related Party (as defined below)that acquires Licensed Product from LICENSEE, Sublicensee, or an Affiliate and resells directly or indirectly such Licensed Product to End Users.

1.4 “End User” means a person or an entity that acquires a Licensed Product for use in the Field rather than for development, resale or distribution.

1.5 “EPO Member States” means Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, Turkey, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, Sweden, and the United Kingdom.

1.6 “Field” means diagnostic uses in the targeting of CD206 receptor positive cells residing in the lymph nodes with a radio-labeled-carbohydrate-conjugated macromolecule.

1.7 “Indication” means a human clinical condition for which use of a Licensed Product requires regulatory approval by the United States Food and Drug Administration (FDA) or a foreign equivalent. Each Indication under development herein shall be sequentially identified as a “First Indication”, “Second Indication”, and so on, with the understanding that each Indication so identified is distinct from every other Indication under development or developed.

1.8 “Licensed Method” means any method that uses Technology, or that is claimed in Patent Rights (as defined below), the use of which would constitute, but for the license granted to LICENSEE under this Agreement, an infringement, an inducement to infringe or contributory infringement, of any pending or issued claim within Patent Rights.

1.9 “Licensed Product” means any service, composition or product that uses Technology, or that is claimed in Patent Rights, or that is produced by the Licensed Method, or the manufacture, use, sale, offer for sale, or importation of which would constitute, but for the license granted to LICENSEE under this Agreement, an infringement, an inducement to infringe or contributory infringement, of any pending or issued claim within the Patent Rights.

1.10 “Net Sales” means the gross amounts invoiced to third parties for Licensed Products sold or leased by LICENSEE, Sublicensee, or its Affiliate, or in any combination thereof, less the sum of the following actual and customary deductions where applicable and separately listed: cash, trade, or quantity discounts or rebates (as allowed under applicable law); sales tax, use tax, tariff, import/export duties or other excise taxes imposed on particular sales (except for value-added and income taxes imposed on the sales of Licensed Product in foreign countries); transportation charges; credits to customers because of rejections or returns, or transfers of Licensed Products without charge for charitable, promotional, non-clinical, clinical research or regulatory purposes. For purposes of calculating Net Sales, transfers to a Sublicensee or an Affiliate of Licensed Product under this Agreement without an invoice for (i) end use (but not resale) by the Sublicensee or Affiliate shall be treated as sales by LICENSEE at list price of LICENSEE, or (ii) resale by a Sublicensee or an Affiliate shall be treated as sales at the list price of the Sublicensee or Affiliate.

1.11 “Patent Costs” means all out-of-pocket expenses, except for the reimbursement paid by LICENSEE under another agreement with the University, for the preparation, filing, prosecution, and maintenance of all United States and foreign patents included in Patent Rights. Patent Costs shall also include out-of-pocket expenses for patentability opinions, inventorship determination, preparation and prosecution of patent application, re-examination, re-issue, interference, and opposition activities related to patents or applications in Patent Rights.

1.12 “Patent Rights” means UNIVERSITY’s rights in any of the following: the US patent application (serial number 09/569,466, titled “MACROMOLECULAR CARRIER FOR DRUG AND DIAGNOSTIC AGENT DELIVERY”) disclosing and claiming the Invention, filed by Inventor and assigned to UNIVERSITY; and continuing applications thereof including divisions, substitutions, and continuations-in-part (but only to the extent the claims thereof are entirely supported in the specification and entitled to the priority date of the parent application); any patents issuing on said applications including reissues, reexaminations and extensions; and any corresponding foreign applications or patents.

1.13 “Related Party” means a corporation, firm, or other entity with which, or individual with whom, the LICENSEE, Sublicensee, Affiliate, or any combination thereof (or any of their respective stockholders, subsidiaries or Affiliates) have an agreement, understanding, or arrangement (for example, but not by way of limitation, an option to purchase stock or other equity interest, or an arrangement involving a division of revenue, milestone payments, profits, discounts, rebates, or allowances) unrelated to the sale or exploitation of the Licensed Products without which such other agreement, understanding, or arrangement, the amounts, if any, charged by the LICENSEE or Affiliate to such entity or individual for the Licensed Product would be higher than the invoice price actually received, or if such agreement, understanding, or arrangement results in the LICENSEE extending to such entity or individual lower prices for such Licensed Product than those charged to others without such agreement, understanding, or arrangement buying similar products or services in similar quantities.

1.14 "Sponsor’s Rights" means all the applicable provisions of any license to the United States Government executed by UNIVERSITY and the overriding obligations to the US Government under 35 U.S.C. §§ 200-212 and applicable governmental implementing and the overriding obligations to NIH under the sponsorship agreement with the same.

1.15 “Sublicense” means an agreement into which LICENSEE enters with a third party that is not, at the time of execution of such Sublicense agreement, an Affiliate of LICENSEE for the purpose of (i) granting certain rights; (ii) granting an option to certain rights; or (iii) forbearing the exercise of any rights, in each case, granted to LICENSEE under this Agreement. “Sublicensee” means a third party with whom LICENSEE enters into a Sublicense.

1.16 “Sublicense Fees” means all upfront fees, milestone payments and similar license fees received by LICENSEE from its Sublicensees in consideration for the grant of a Sublicense, but excluding:

(a) any royalty payments;

(b) payments for equity or debt securities of LICENSEE (except to the extent such payments exceed the fair market value of such securities upon date of receipt, in which case such premiums over fair market value shall be deemed to be “Sublicense Fees”);

(c) research or development funding to be applied directly to the future research

and/or development of Licensed Products provided, however that such payments shall not include executive and clerical salaries, legal costs (other than Patent Costs) or other costs not directly related to research,

(d) payments and reimbursement to LICENSEE of Patent Costs paid to UNIVERSITY by LICENSEE with respect to the filing, preparation, prosecution or maintenance of the Patent Rights; and

(e) milestone payments attributable to the achievement of any of the milestone events set forth in Section 3.1(c).

1.17 "Technology" means the written technical information relating to the Invention, excluding personal health information (PHI) and personal identity information (PII), which the Inventor has and may provide to LICENSEE during the Term of this Agreement

1.18 "Term" means on a country-by-country basis, the period of time beginning on the Effective Date and (i) ending on the third anniversary of the expiration date of last to expire valid claim in the Patent Rights covering the Licensed Product where no patent extension is granted, (ii) ending on the third anniversary of the expiration date of the last-to-expire patent extension covering the Licensed Product where patent extension is granted, or (iii) ending on the later of 1.18 (i) or (ii) where no Patent Rights exist but Technology is utilized .

1.19 "Territory" means worldwide to the extent this license may legally be granted.

1.20 "Third Party" means any individual or entity other than LICENSEE or UNIVERSITY or an Affiliate of LICENSEE or UNIVERSITY.

ARTICLE 2. GRANTS

2.1 **License**. Subject to the limitations set forth in this Agreement and Sponsor's Rights, UNIVERSITY hereby grants to LICENSEE, and LICENSEE hereby accepts, a license under Patent Rights to make and have made, to use and have used, to sell and have sold, to offer for sale, and to import Licensed Products and to practice Licensed Methods and to use Technology, in the Field within the Territory and during the Term.

The license granted herein is exclusive for Patent Rights and non-exclusive for Technology.

2.2 **Sublicense.**

(a) The license granted in Section 2.1 includes the right of LICENSEE to grant sublicenses to third parties and Affiliates during the Term, through multiple tiers, but only for as long as the license from UNIVERSITY is exclusive.

(b) With respect to Sublicense granted pursuant to Paragraph 2.2(a), LICENSEE shall:

(i) not receive, or agree to receive, anything of value in lieu of cash as consideration from a third party under a Sublicense granted pursuant to Paragraph 2.2(a) without the express written consent of UNIVERSITY;

(ii) to the extent applicable, include all of the rights of and obligations due to UNIVERSITY (and, if applicable, the Sponsor's Rights) and contained in this Agreement;

(iii) promptly provide UNIVERSITY with a copy of each Sublicense issued, and

(iv) collect and guarantee payment of all payments due, directly or indirectly, to UNIVERSITY from Sublicensees and summarize and deliver all reports due, directly or indirectly, to UNIVERSITY from Sublicensees.

(c) Upon early termination of this Agreement for any reason (but not expiration as provided in Section 1.18), UNIVERSITY, at its sole discretion, shall determine whether LICENSEE shall cancel or assign to UNIVERSITY any and all Sublicenses.

2.3 **Reservation of Rights**. UNIVERSITY reserves the right to:

(a) use the Invention, Technology and Patent Rights for educational and research purposes;

(b) subject to the provisions of Article 10.2, publish or otherwise disseminate any information about the Invention and Technology at any time; and

(c) allow other nonprofit institutions to use and publish or otherwise disseminate any information about Invention, Technology and Patent Rights for educational and research purpose.

ARTICLE 3. CONSIDERATION

3.1 Fees and Royalties. The parties hereto understand that the fees and royalties payable by LICENSEE to UNIVERSITY under this Agreement are partial consideration for the license granted herein to LICENSEE under Technology, and Patent Rights. LICENSEE shall pay UNIVERSITY:

(a) a license issue fee of twenty five thousand dollars (US$25,000), was paid under the Original Agreements;

(b) license maintenance fees of twenty five thousand dollars (US$25,000) per year, payable annually, has been satisfied under the Original Agreements and that

LICENSEE's obligation to pay this fee has ended on the date of the first commercial sale of a Licensed Product in the Territory;

(c) milestone payments in the amounts set forth below within forty-five (45) days after the achievement of each of the following events:

	Amount in US dollars	**Event**
A	$[*]	Commencement of phase 2 trial for melanoma. UNIVERSITY and LICENSEE acknowledge that the payment for milestone A was made in full on Aug 2006.
B	$[*]	Commencement of phase 2 trial for breast cancer. UNIVERSITY and LICENSEE acknowledge that the payment for milestone B was made in full on Aug 2006.
C	$[*]	Earlier of commencement for any cancer that is not melanoma, breast, colorectal, stomach, or cervical or regulatory approval allowing sales of Licensed Product for cancer other than melanoma, breast, colorectal, stomach, or cervical. UNIVERSITY and LICENSEE acknowledge that the payment for milestone C was made in full on April 2009.
D	$[*]	Completion of phase 3 trial for melanoma. UNIVERSITY and LICENSEE acknowledge that the payment for milestone D was made in full on April 2009.
E	$[*]	Completion of phase 3 trial for breast cancer. UNIVERSITY and LICENSEE acknowledge that the payment for milestone E was made in full on April 2009.
F	$[*]	Submission of application for regulatory approval. UNIVERSITY and LICENSEE acknowledge that the payment for milestone F was made in full on December 2011.
G	$[*]	US regulatory clearance granted allowing sales of Licensed Product independent of disease type, or for two or more disease types, or to be substituted by H and I. UNIVERSITY and LICENSEE acknowledge that the payment for milestone G was made in full on December April 2013.
H	$[*]	US regulatory clearance granted allowing sales of Licensed Product for the first disease type. UNIVERSITY and LICENSEE acknowledge that the payment for milestone H was satisfied by payment of milestone G.

I	$[*]	US regulatory clearance granted allowing sales of Licensed Product for the second disease type. UNIVERSITY and LICENSEE acknowledge that the payment for milestone I was satisfied by payment of milestone G.
J	$[*]	Regulatory clearance allowing sales of Licensed Product in any EPO Member State or Japan independent of disease type, for two or more disease types, or to be substituted by K and L.
K	$[*]	Regulatory clearance allowing sales of Licensed Product in any EPO Member State or Japan for the first disease type.
L	$[*]	Regulatory clearance allowing sales of Licensed Product in any EPO Member State or Japan for the second disease type.

(d) Earned royalty on Net Sales of Licensed Products by LICENSEE, Affiliate, Sublicensee, or any combination thereof when (A) the License Product is manufactured in a country with Patent Rights and sold in a country with Patent Rights, (B) the License Product is manufactured in a country with Patent Rights and sold in a country without Patent Rights, or (C) when the Licensed Product is manufactured in a country without Patent Rights and imported to a country with Patent Rights:

3. 1(d) Royalty Rate Table

Percent of earned royalty	
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, less than or equal to [*] US dollars ($[*])
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, greater than [*] US dollars ($[*]) but less than or equal to [*] US dollars ($[*])
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, greater than [*] US dollars ($[*])

provided, however, that the earned royalty due on Net Sales of:

(i) Licensed Products sold within three (3) years after the expiration date of the Patent Rights or the extension of the Patent Rights, and that would have infringed Patent Rights prior to expiration or extension of the Patent Rights will be deemed to be Licensed Product as consideration of the use of the Technology with a royalty during the first year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above, during the second year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above and during the third year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above;

(ii) Licensed Products manufactured in a country without Patent Rights and sold in a country without Patent Rights will be deemed to be Licensed Product as consideration of the use of the Technology with a royalty rate of [*] percent ([*]%) of 3.1 (d) Royalty Rate Table;

(iii) Licensed Product sold to Distributor(s), shall be based on the gross amounts invoiced to Distributor(s) for Licensed Products and the value of any other consideration (for example, but not by way of limitation, payments for Licensed Product, transfer cost, a division of revenue, milestone payments, profits, or an option to purchase stock or other equity

interest) received by LICENSEE, Sublicensee, Affiliate, or any combination thereof, less the sum of the following actual and customary deductions where applicable and separately listed: cash, trade, or quantity discounts or rebates (as allowed under applicable law); sales tax, use tax, tariff, import/export duties or other excise taxes imposed on particular sales (except for value-added and income taxes imposed on the sales of Licensed Product in foreign countries); transportation charges; credits because of rejections or returns ;

(iv) Combination Product by LICENSEE and/or its Affiliate(s) shall be calculated as below:

Earned Royalties due UNIVERSITY = [A/(A+B)] x applicable Royalty Rate on Net Sales of the Licensed Products applicable in (i), (ii), or (iii) x Net Sales of Combination Product, where:

A is the separate average sales price of the Licensed Product or Licensed Product components during the period to which the royalty calculation applies; and B is the average sales price of the separately listed sale prices of the individual products or product components included in such Combination Product that are not Licensed Products during the period to which the royalty calculation applies. If LICENSEE does not separately sell the Licensed Product or the B product or product components used in Combination Product, the purchase price paid by LICENSEE in the procurement of said products or product components shall be used. For any products in B for which LICENSEE has reduced its earned royalties payable to UNIVERSITY under 3.1(d)(v), this provision shall not apply.

(v) in the event LICENSEE or Affiliate is required to pay royalties to one or more third parties for patent rights necessary to make, use or sell Licensed Products, LICENSEE may deduct $[*] from the earned royalties payable to UNIVERSITY for every $[*] LICENSEE or Affiliate actually pays to said third parties; and

(vi) in no event shall the amount payable to UNIVERSITY in any calendar quarter be less than [*] percent ([*]%) of the amount without the deductions allowable under 3.1 (d) (iv) and/or 3.1 (d) (v);

(e) the applicable percentage ("Applicable Percentage" or "AP") according to the following schedules of all Sublicense Fees received by LICENSEE from its Sublicensees that are not earned royalties according to the following schedules::

	Time of Sublicense Grant	AP(%)
A	[*]	[*]%
B	[*]	[*]%
C	[*]	[*]%
D	[*]	[*]%
E	[*]	[*]%
F	[*]	[*]%
G	[*]	[*]%
H	[*]	[*]%

(f) on each and every Sublicense royalty payment received by LICENSEE from its Sublicensees on Net Sales of Licensed Product by Sublicensee, royalties based on the royalty rate of (i) [*] percent ([*]%) as applied to Net Sales (defined in 1.10) of Sublicensee to End User, and (ii) [*] percent ([*]%) as applied to Net Sales (defined in 3.1(d)(iii)) of Sublicensee to Distributor;

(g) beginning with the calendar year of first commercial sale of the first Licensed Product by LICENSEE, its Sublicensee, or an Affiliate, if the total earned royalties paid by LICENSEE under Paragraphs 3.1(d) and (f) to UNIVERSITY in any such year cumulatively amounts to less than twenty five thousand Dollars ($25,000) ("minimum annual royalty"), LICENSEE shall pay to UNIVERSITY on or before February 28 following the last quarter of such year the difference between the minimum annual royalty and the total earned royalty paid by LICENSEE for such year under Paragraphs 3.1(d) and (f); provided, however, that for the year of first commercial sale of the first Licensed Product, the amount of minimum annual royalty payable shall be pro-rated for the number of months remaining in that calendar year.

All fees and royalty payments specified in Paragraphs 3.1(a) through 3.1(g) above shall be paid by LICENSEE pursuant to Paragraph 4.3 and shall be delivered by LICENSEE to UNIVERSITY as noted in Paragraph 10.1.

For purposes of this Section 3.1, if any rights to develop, manufacture or commercialize Licensed Products are granted by LICENSEE to an Affiliate and thereafter such party ceases to be an Affiliate of LICENSEE, such party will not be deemed to be a Sublicensee hereunder, and the exercise of any such rights granted to such party will be remain subject to the provisions of this Section 3.1 as if such party were an Affiliate and remains under a Sublicense.

3.2 **Patent Costs**. LICENSEE shall reimburse UNIVERSITY for all past (prior to the Effective Date) and future (on or after the Effective Date) Patent Costs within thirty (30) days following the date an itemized invoice is sent from UNIVERSITY to LICENSEE.

3.3 Due Diligence.

(a) LICENSEE shall, either directly or through its Affiliate(s) or Sublicensee(s) to:

(i) diligently proceed with the development, manufacture and sale of Licensed Products;
(ii) market Licensed Products within six (6) months of receiving regulatory approval to market such Licensed Products;
(iii) fill the market demand for Licensed Products following commencement of marketing at any time during the term of this Agreement and
(iv) obtain all necessary governmental approvals for the use and sale of Licensed Products in the Territory.

(b) If LICENSEE fails to perform any of its obligations specified in Paragraphs 3.1(c) and 3.3(a)(i)-(iv), then UNIVERSITY shall have the right and option to either terminate this Agreement or change LICENSEE's exclusive license to a nonexclusive license provided that LICENSEE has not cured such failure to perform within ninety (90) days written notice from the UNIVERSITY of said failure. This right, if exercised by UNIVERSITY, supersedes the rights granted in Article 2.

ARTICLE 4. REPORTS, RECORDS AND PAYMENTS

4.1 **Reports.**

(a) **Progress Reports**.

(i) Beginning six months after Effective Date and ending on the date of first commercial sale of a Licensed Product in the United States, with respect to each six month period ending June 30 and December 31 during such period, LICENSEE shall report to UNIVERSITY LICENSEE's (and Affiliate's and Sublicensee's) activities for the preceding six months to develop and test all Licensed Products and obtain governmental approvals necessary for marketing the same. Such semi-annual reports shall be due within sixty (60) days of the reporting period and include a summary of work completed, summary of work in progress, current schedule of anticipated events or milestones, market plans for introduction of Licensed Products, and summary of resources (dollar value) spent in the reporting period. The reports referred to in this Section 4.1(a) should be marked with the following title and case number: "License Agreement between UCSD and Navidea Biopharmaceuticals for case SD1998-088". Reports

shall be submitted as attachment to UCSD's email address: tto-reports@ucsd.edu.

(ii) LICENSEE shall report to UNIVERSITY the date of a first commercial sale of a Licensed Product anywhere in the Territory. Beginning three months after Effective Date and ending on the date of first commercial sale, the UNIVERSITY may request the status of such first commercial sale.

(b) **Royalty Reports**.

After the first commercial sale of a Licensed Product anywhere in the Territory, LICENSEE shall submit to UNIVERSITY quarterly royalty reports on or before February 28, May 31, August 31 and November 30 of each year. Each royalty report shall cover LICENSEE's (and each Affiliate's and Sublicensee's) most recently completed calendar quarter and shall show:

(i) the date of first commercial sale of a Licensed Product in each country in the Territory;

(ii) the gross sales, deductions as provided in Paragraph 1.10 (Net Sales), and Net Sales during the most recently completed calendar quarter and the royalties, in US dollars, payable with respect thereto;

(iii) the number of each type of Licensed Product sold;

(iv) Sublicense Fees and royalties received during the most recently completed calendar quarter in US dollars, and the portion thereof payable to UNIVERSITY hereunder;

(v) the method used to calculate the royalties; and

(vi) the exchange rates used.

If no sales of Licensed Products have been made and no Sublicensing Revenue has been received by LICENSEE during any reporting period, LICENSEE shall so report. The reports referred to in this Section 4.1(b) should be marked with the following title and case number: "License Agreement between UCSD and Navidea Biopharmaceuticals for case SD1998-088". Reports shall be submitted as attachment to UCSD's email address: tto-reports@ucsd.edu.

4.2 **Records & Audits.**

(a) LICENSEE shall keep, and shall require its Affiliates and Sublicensees to keep,

accurate and correct records of all Licensed Products manufactured, used, and sold, and Sublicense Fees received under this Agreement. Such records shall be retained by LICENSEE for at least five (5) years following a given reporting period.

(b) Upon five (5) business days prior notice to LICENSEE all records shall be available during normal business hours for inspection at the
expense of UNIVERSITY by UNIVERSITY's Internal Audit Department or by a Certified Public Accountant selected by UNIVERSITY and in compliance with the other terms of this Agreement for the sole purpose of verifying reports and payments or other compliance issues. Such inspector shall not disclose to UNIVERSITY any information other than information relating to the accuracy of reports and payments made under this Agreement or other compliance issues. In the event that any such inspection shows an under reporting and underpayment in excess of five percent (5%) for any twelve-month (12-month) period, then LICENSEE shall pay the cost of the audit as well as any additional sum that would have been payable to UNIVERSITY had the LICENSEE reported correctly, plus an interest charge at a rate of ten percent (10%) per year. Such interest shall be calculated from the date the correct payment was due to UNIVERSITY up to the date when such payment is actually made by LICENSEE. For underpayment not in excess of five percent (5%) for any twelve-month (12-month) period, LICENSEE shall pay the difference within thirty (30) days without interest charge or inspection cost. UNIVERSITY may only conduct one such audit per calendar year.

4.3 **Payments.**

(a) All fees, reimbursements and royalties due to UNIVERSITY shall be paid in United States dollars and all checks shall be made payable to "The Regents of the University of California", referencing UNIVERSITY's taxpayer identification number, 95-6006144, and sent to UNIVERSITY according to Paragraph 10.1 (Correspondence). When Licensed Products are sold in currencies other than United States dollars, LICENSEE shall first determine the earned royalty in the currency of the country in which Licensed Products were sold and then convert the amount into equivalent United States funds, using the exchange rate quoted in the Wall Street Journal on the last business day of the applicable reporting period.

(b) Royalty
Payments.

(i) Royalties shall accrue when Licensed Products are invoiced, or if not invoiced, when delivered to a third party or Affiliate.

(ii) LICENSEE shall pay earned royalties quarterly on or before February 28,

May 31, August 31 and November 30 of each calendar year. Each such payment shall be for earned royalties accrued within LICENSEE's most recently completed calendar quarter.

(iii) Royalties earned on sales occurring or under a Sublicense granted pursuant to this Agreement in any country outside the United States shall not be reduced by LICENSEE for any taxes, fees, or other charges imposed by the government of such country on the payment of royalty income, except that all payments made by LICENSEE in fulfillment of UNIVERSITY's tax liability in any particular country may be credited against earned royalties or fees due UNIVERSITY for that country. LICENSEE shall pay all bank charges resulting from the transfer of such royalty payments.

(iv) If at any time legal restrictions prevent the prompt remittance of part or all royalties by LICENSEE with respect to any country where a Licensed Product is sold or a Sublicense is granted pursuant to this Agreement, LICENSEE shall convert the amount owed to UNIVERSITY into US currency and shall pay UNIVERSITY directly from its US sources of funds for as long as the legal restrictions apply.

(v) LICENSEE shall not collect royalties from, or cause to be paid on Licensed Products sold to the account of the US Government or any agency thereof as provided for in the license to the US Government.

(vi) In the event that any patent or patent claim within Patent Rights is held invalid in a final decision by a patent office from which no appeal or additional patent prosecution has been or can be taken, or by a court of competent jurisdiction and last resort and from which no appeal has or can be taken, all obligation to pay royalties based solely on that patent or claim or any claim patentably indistinct therefrom shall cease as of the date of such final decision. LICENSEE shall not, however, be relieved from paying any royalties that accrued before the date of such final decision, that are based on another patent or claim not involved in such final decision, or that are based on the use of Technology.

(vii) Royalty payments under Article 3, recoveries and settlements under Article 5, and royalty reports under 4.1(b) shall be rendered for any and all Licensed Products even if due after expiration of the Agreement.

(c) Late Payments. In the event royalty, reimbursement and/or fee payments are not received by UNIVERSITY when due, LICENSEE shall pay to UNIVERSITY interest charges at a rate of ten percent (10%) per year. Such interest shall be calculated from the date payment was due until actually received by UNIVERSITY.

ARTICLE 5. PATENT MATTERS

5.1 **Patent Prosecution and Maintenance.**

(a) Provided that LICENSEE has reimbursed UNIVERSITY for Patent Costs pursuant to Paragraph 3.2, UNIVERSITY shall diligently prosecute and maintain the United States and, if available, foreign patents, and applications in Patent Rights using counsel of its choice. For purposes of clarity, if LICENSEE is not current in reimbursing UNIVERSITY for such patent prosecution costs, UNIVERSITY shall have no obligation to incur any new Patent Costs under this Agreement or to further prosecute Patent Rights or file any new patents under Patent Rights. UNIVERSITY shall provide LICENSEE with copies of all relevant documentation relating to such prosecution and LICENSEE shall keep this documentation confidential. The UNIVERSITY's counsel shall take instructions only from UNIVERSITY, and all patents and patent applications in Patent Rights shall be assigned solely to UNIVERSITY. UNIVERSITY shall in any event control all patent filings and all patent prosecution decisions and related filings (e.g. responses to office actions) shall be at UNIVERSITY's final discretion (prosecution includes, but is not limited to, interferences, oppositions and any other *inter partes* matters originating in a patent office).

(b) UNIVERSITY shall consider amending any patent application in Patent Rights to include claims reasonably requested by LICENSEE to protect the products contemplated to be sold by LICENSEE under this Agreement.

(c) LICENSEE may elect to terminate its reimbursement obligations with respect to any patent application or patent in Patent Rights upon three (3) months' written notice to UNIVERSITY. UNIVERSITY shall use reasonable efforts to curtail further Patent Costs for such application or patent when such notice of termination is received from LICENSEE. UNIVERSITY, in its sole discretion and at its sole expense, may continue prosecution and maintenance of said application or patent, and LICENSEE shall have no further license with respect thereto. Non-payment of any portion of Patent Costs or Anticipated Costs with respect to any application or patent may be deemed by UNIVERSITY as an election by LICENSEE to terminate its reimbursement obligations with respect to such application or patent. UNIVERSITY is not obligated at any time to file, prosecute, or maintain Patent Rights in a country, where, for that country's patent application LICENSEE is not paying Patent Costs, or to file, prosecute, or maintain Patent Rights to which LICENSEE has terminated its license hereunder.

(d) LICENSEE shall apply for an extension of the term of any patent in Patent Rights if appropriate under the Drug Price Competition and Patent Term Restoration Act of 1984 and/or European, Japanese and other foreign counterparts of this law. LICENSEE shall prepare all documents for such application, and UNIVERSITY

shall execute such documents and take any other additional action as LICENSEE reasonably requests in connection therewith.

5.2 **Patent Infringement.**

(a) In the event that UNIVERSITY (to the extent of the actual knowledge of the licensing professional responsible for the administration of this Agreement) or LICENSEE learns of infringement of potential commercial significance of any patent licensed under this Agreement, the knowledgeable party will provide the other (i) with written notice of such infringement and (ii) with any evidence of such infringement available to it (the "Infringement Notice"). Subject to Sections 5.2(b) and 5.2(c), during the period in which, and in the jurisdiction where, LICENSEE has exclusive rights under this Agreement, neither UNIVERSITY nor LICENSEE will notify a third party (including the infringer) of infringement or put such third party on notice of the existence of any Patent Rights without first obtaining consent of the other. If LICENSEE notifies a third party of infringement or puts such third party on notice of the existence of any Patent Rights with respect to such infringement without first obtaining the written consent of UNIVERSITY and UNIVERSITY is sued in declaratory judgment, UNIVERSITY shall have the right to terminate this Agreement immediately without the obligation to provide sixty (60) days' notice as set forth in Paragraph 7.1. Both UNIVERSITY and LICENSEE will use their diligent efforts to cooperate with each other to terminate such infringement without litigation.

(b) If infringing activity of potential commercial significance by the infringer has not been abated within ninety (90) days following the date of the Infringement Notice, LICENSEE may institute suit for patent infringement against the infringer. UNIVERSITY may voluntarily join such suit at its own expense, but may not thereafter commence suit against the infringer for the acts of infringement that are the subject of LICENSEE's suit or any judgment rendered in that suit. LICENSEE may not join UNIVERSITY in a suit initiated by LICENSEE without UNIVERSITY'S prior written consent. If, in a suit initiated by LICENSEE, UNIVERSITY is involuntarily joined other than by LICENSEE, LICENSEE will pay any costs incurred by UNIVERSITY arising out of such suit, including but not limited to, any legal fees of counsel that UNIVERSITY selects and retains to represent it in the suit.

(c) If, within a hundred and twenty (120) days following the date the Infringement
Notice takes effect, infringing activity of potential commercial significance by the infringer has not been abated and if LICENSEE has not brought suit against the infringer, UNIVERSITY may institute suit for patent infringement against the infringer. If UNIVERSITY institutes such suit, LICENSEE may not join such suit without UNIVERSITY'S consent and may not thereafter commence suit against the infringer for the acts of infringement that are the subject of UNIVERSITY'S suit or any judgment rendered in that suit.

(d) Notwithstanding anything to the contrary in this Agreement, in the event that the infringement or potential infringement pertains to an issued patent included within the Patent Rights and written notice is given under any statute expediting litigation (e.g. the Drug Price Competition and Patent Term Restoration Act of 1984 and/or foreign counterparts of this Law) ("Act"), then the party in receipt of such notice under the Act (in the case of UNIVERSITY to the extent of the actual knowledge of the licensing officer responsible for the administration of this Agreement) shall provide the Infringement Notice to the other party promptly. If the time period is such that the LICENSEE will lose the right to pursue legal remedy for infringement by not notifying a third party or by not filing suit, the notification period and the time period to file suit will be accelerated to within forty-five (45) days of the date of such notice under the Act to either party.

(e) Any recovery or settlement received in connection with any suit will first be shared by UNIVERSITY and LICENSEE equally to cover the litigation costs each incurred, and next shall be paid to UNIVERSITY or LICENSEE to cover any litigation costs it incurred in excess of the litigation costs of the other. In any suit initiated by LICENSEE, any recovery in excess of litigation costs will be shared between LICENSEE and UNIVERSITY as follows: (i) for any recovery other than amounts paid for willful infringement: (A) UNIVERSITY will receive fifteen percent (15%) of the recovery if UNIVERSITY was not a party in the litigation and did not incur any litigation costs; (B) UNIVERSITY will receive twenty-five percent (25%) of the recovery if UNIVERSITY was a party in the litigation, but did not incur any litigation costs, including the provisions of Paragraph 5.2(b) above, or (C) UNIVERSITY will receive fifty percent (50%) of the recovery if UNIVERSITY incurred any litigation costs in connection with the litigation; and (ii) for any recovery for willful infringement, UNIVERSITY will receive fifty percent (50%) of the recovery. In any suit initiated by UNIVERSITY, any recovery in excess of litigation costs will belong to UNIVERSITY. UNIVERSITY and LICENSEE agree to be bound by all determinations of patent infringement, validity, and enforceability (but no other issue) resolved by any adjudicated judgment in a suit brought in compliance with this Section 5.2.

(f) Any agreement made by LICENSEE for purposes of settling litigation or other dispute shall comply with the requirements of Section 2.2 (Sublicenses) of this Agreement.

(g) Each party will cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party who initiated the suit (unless such suit is being jointly prosecuted by the parties).

(h) Any litigation proceedings will be controlled by the party bringing the suit, except

that UNIVERSITY may be represented by counsel of its choice in any suit brought by LICENSEE.

5.3 **Patent Marking.** LICENSEE shall mark all Licensed Products made, used or sold under the terms of this Agreement, or their containers, in accordance with the applicable patent marking laws. LICENSEE shall be responsible for all monetary and legal liabilities arising from or caused by (i) failure to abide by applicable patent marking laws and (ii) any type of incorrect or improper patent marking.

ARTICLE 6. GOVERNMENTAL MATTERS

6.1 **Governmental Approval or Registration.** If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, LICENSEE shall assume all legal obligations to do so. LICENSEE shall notify UNIVERSITY if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. LICENSEE shall make all necessary filings and pay all costs including fees, penalties, and all other out-of-pocket costs associated with such reporting or approval process.

6.2 **Export Control Laws.** LICENSEE shall observe all applicable United States and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

6.3 **Preference for United States Industry.** If LICENSEE sells a Licensed Product or Combination Product in the US, LICENSEE shall manufacture said product substantially in the US. Notwithstanding the foregoing, at LICENSEE's request, UNIVERSITY will reasonably cooperate with LICENSEE in seeking a waiver to the requirement for substantial manufacture in the United States according to 35 U.S. CODE § 204. To the extent such waiver if granted, LICENSEE shall comply with the terms granted in the waiver.

ARTICLE 7. TERMINATION OR EXPIRATION OF THE AGREEMENT

7.1 **Termination by UNIVERSITY**.

(a) If LICENSEE fails to perform or violates any term of this Agreement, then UNIVERSITY may give written notice of default ("Notice of Default") to LICENSEE. If LICENSEE fails to cure the default within ninety (90) days of the Notice of Default, UNIVERSITY may terminate this Agreement and the license granted herein by a second written notice ("Notice of Termination") to LICENSEE. If a Notice of Termination is sent to LICENSEE, this Agreement shall automatically terminate on the effective date of that notice. Termination shall not relieve LICENSEE of its obligation to pay any fees owed at the time of termination and shall not impair any accrued right of UNIVERSITY. During the term of any such Notice of Default or period to cure, to the extent the default at

issue is a failure to pay past or ongoing Patent Costs as provided for under this Agreement, UNIVERSITY shall have no obligation to incur any new Patent Costs under this Agreement and shall have no obligation to further prosecute Patent Rights or file any new patents under Patent Rights.

(b) This Agreement will terminate immediately, without the obligation to provide ninety (90) days' notice as set forth in Paragraph 7.1(a), if LICENSEE files a claim including in any way the assertion that any portion of UNIVERSITY's Patent Rights is invalid or unenforceable where the filing is by the LICENSEE, a third party on behalf of the LICENSEE, or a third party at the written urging of the LICENSEE.

(c) This Agreement shall automatically terminate without the obligation to provide ninety (90) days' notice as set forth in Paragraph 7.1(a) upon the filing of a petition for relief under the United States Bankruptcy Code by or against the LICENSEE as a debtor or alleged debtor.

7.2 **Termination by LICENSEE.**

(a) LICENSEE shall have the right at any time and for any reason to terminate this Agreement upon a ninety (90) day written notice to UNIVERSITY. Said notice shall state LICENSEE's reason for terminating this Agreement.

(b) Any termination under Paragraph 7.2(a) shall not relieve LICENSEE of any obligation or liability accrued under this Agreement prior to termination or rescind any payment made to UNIVERSITY or action by LICENSEE prior to the time termination becomes effective. Termination shall not affect in any manner any rights of UNIVERSITY arising under this Agreement prior to termination.

7.3 **Survival on Termination or Expiration.** The following Paragraphs and Articles shall survive the termination or expiration of this Agreement:

(a) Article 4 (REPORTS, RECORDS AND PAYMENTS);

(b) Paragraph 7.3 (Survival on Termination or Expiration);

(c) Paragraph 7.4 (Disposition of Licensed Products on Hand);

(d) Paragraph 7.5 (Fully-Paid License);

(e) Article 8 (LIMITED WARRANTY AND INDEMNIFICATION);

(f) Article 9 (USE OF NAMES AND TRADEMARKS);

(g) Section 10.2 hereof (Secrecy);

(h) Paragraph 10.5 (Failure to Perform); and

(i) Paragraph 10.6 (Governing Laws).

7.4 **Disposition of Licensed Products on Hand.** Upon termination of this Agreement, LICENSEE may dispose of all previously made or partially made Licensed Product within a period of one hundred and twenty (120) days of the effective date of such termination provided that the sale of such Licensed Product by LICENSEE, its Sublicensees, or Affiliates shall be subject to the terms of this Agreement, including but not limited to the rendering of reports and payment of royalties required under this Agreement.

7.5 **Fully-Paid License**. Upon expiration of the Term (but not termination under Section 7.1 or 7.2) the license granted to LICENSEE in Section 2.1 shall become a perpetual, irrevocable, fully-paid license.

ARTICLE 8. LIMITED WARRANTY AND INDEMNIFICATION

8.1 **Limited Warranty.**

(a) UNIVERSITY warrants to the LICENSEE that it has the lawful right to grant this license. This warranty does not include Patent Rights to the extent assigned, or otherwise licensed, by UNIVERSITY's inventor to third parties.

(b) The license granted herein and the associated Technology are is provided "AS IS" and without WARRANTY OF MERCHANTABILITY or WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE or any other warranty, express or implied. UNIVERSITY makes no representation or warranty that the Licensed Product, Licensed Method or the use of Patent Rights or Technology will not infringe any other patent or other proprietary rights.

(c) UNIVERSITY WILL NOT BE LIABLE FOR ANY LOST PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST BUSINESS, ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT, OR FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SPECIAL DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO THIS AGREEMENT FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF UNIVERSITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH

DAMAGES. ALSO, UNIVERSITY WILL NOT BE LIABLE FOR ANY DIRECT DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO PATENT RIGHTS TO THE EXTENT ASSIGNED, OR OTHERWISE LICENSED, BY UNIVERSITY'S INVENTOR TO THIRD PARTIES.

(d) Nothing in this Agreement shall be construed as:

(i) a warranty or representation by UNIVERSITY as to the validity or scope of any Patent Rights;

(ii) a warranty or representation that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or shall be free from infringement of patents of third parties;

(iii) an obligation to bring or prosecute actions or suits against third parties for patent infringement or misappropriation of Technology except as provided in Section 5.2 hereof;

(iv) conferring by implication, estoppel or otherwise any license or rights under any patents of UNIVERSITY other than Patent Rights as defined in this Agreement, regardless of whether those patents are dominant or subordinate to Patent Rights; or

(v) an obligation to furnish any know-how not provided in Patent Rights and Technology; or

(vi) an obligation to update Technology.

8.2 **Indemnification.**

(a) LICENSEE will, and will require Sublicensees to, indemnify, hold harmless, and defend UNIVERSITY and its officers, employees, and agents; the sponsors of the research that led to the Invention; and the inventor of patents or patent applications under Patent Rights, and their employers; against any and all claims, suits, losses, damages, costs, fees, and expenses resulting from, or arising out of, the exercise of this license or any Sublicense. This indemnification will include, but will not be limited to, any product liability.

(b) LICENSEE, at its sole cost and expense, shall insure its activities in connection with the work under this Agreement and obtain, keep in force and maintain insurance or an equivalent program of self insurance as follows:

(i) comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (A) each occurrence, five million dollars (US$5,000,000); (B) products/completed operations aggregate, ten

million dollars (US$10,000,000); (C) personal and advertising injury, five million dollars (US$5,000,000); and (D) general aggregate (commercial form only), ten million dollars (US$10,000,000). If the above insurance is written on a claims-made form, it shall continue for three (3) years following termination or expiration of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date

(ii) Worker's Compensation as legally required in the jurisdiction in which the LICENSEE is doing business; and

(iii) the coverage and limits referred to above shall not in any way limit the liability of LICENSEE.

(c) LICENSEE shall furnish UNIVERSITY with certificates of insurance showing compliance with all requirements. Such certificates shall: (i) provide for thirty (30) day advance written notice to UNIVERSITY of any modification; (ii) indicate that UNIVERSITY has been endorsed as an additionally insured party under the coverage referred to above; and (iii) include a provision that the coverage shall be primary and shall not participate with nor shall be excess over any valid and collectable insurance or program of self-insurance carried or maintained by UNIVERSITY.

(d) UNIVERSITY shall notify LICENSEE in writing of any claim or suit brought against UNIVERSITY in respect of which UNIVERSITY intends to invoke the provisions of this Article. LICENSEE shall keep UNIVERSITY informed on a current basis of its defense of any claims under this Article. LICENSEE will not settle any claim against UNIVERSITY without UNIVERSITY's written consent, where (i) such settlement would include any admission of liability or admission of wrong doing on the part of the indemnified party, (ii) such settlement would impose any restriction on UNIVERSITY/indemnified party's conduct of any of its activities, or (iii) such settlement would not include an unconditional release of UNIVERSITY/indemnified party from all liability for claims that are the subject matter of the settled claim.

ARTICLE 9. USE OF NAMES AND TRADEMARKS

9.1 Except as provided in 9.3, nothing contained in this Agreement confers any right to use in advertising, publicity, or other promotional activities any name, trade name, trademark, or other designation of either party hereto (including contraction, abbreviation or simulation of any of the foregoing). Unless required by law, the use by LICENSEE of the name, "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity, or other promotional activities is prohibited, without the express written consent of UNIVERSITY.

9.2 UNIVERSITY may disclose to the Inventor the terms and conditions of this Agreement upon their request. If such disclosure is made, UNIVERSITY shall request the Inventor not disclose such terms and conditions to others.

9.3 UNIVERSITY may acknowledge the existence of this Agreement and the extent of the grant in Article 2 to third parties, but UNIVERSITY shall not disclose the financial terms of this Agreement to third parties, except where UNIVERSITY is required by law to do so, such as under the California Public Records Act. LICENSEE hereby grants permission for UNIVERSITY (including UCSD) to include LICENSEE's name and a link to LICENSEE's website in UNIVERSITY's and UCSD's annual reports and on UNIVERSITY's (including UCSD's) websites that showcase technology transfer-related stories.

ARTICLE 10. MISCELLANEOUS PROVISIONS

10.1 **Correspondence.** Any notice or payment required to be given to either party under this Agreement shall be deemed to have been properly given and effective:

(a) on the date of delivery if delivered in person,
(b) five (5) days after mailing if mailed by first-class or certified mail, postage paid, to the respective addresses given below, or to such other address as is designated by written notice given to the other party, or
(c) upon confirmation by recognized national overnight courier, confirmed facsimile transmission, or confirmed electronic mail, to the following addresses or facsimile numbers of the parties.

If sent to LICENSEE:

Navidea Biopharmaceuticals, Inc.
5600 Blazer Parkway, Suite 200
Dublin, OH 43017-1367
Attention: President, CEO
Phone: 614-793-7500
Fax: 614-793-7522

If sent to UNIVERSITY by mail:
University of California, San Diego
Technology Transfer Office
9500 Gilman Drive, Mail Code 0910
La Jolla, CA 92093-0910
Attention: Assistant Vice Chancellor

If sent to UNIVERSITY by overnight delivery:
University of California, San Diego
Technology Transfer Office

10300 North Torrey Pines Road
Torrey Pines Center North, Third Floor
La Jolla, CA 92037
Attention: Assistant Vice Chancellor

10.2 **Secrecy.**

(a) "Confidential Information" shall mean with respect to UNIVERSITY, confidential information, including Technology, relating to the Invention and disclosed by UNIVERSITY to LICENSEE during the term of this Agreement, and with respect to LICENSEE, all trade secrets or confidential or proprietary information or tangible materials provided by LICENSEE received by UNIVERSITY hereunder (including any reports delivered pursuant to Section 4.1)in the course of its performance of its obligations hereunder, which if disclosed in writing shall be marked "Confidential", or if first disclosed otherwise, shall within thirty (30) days of such disclosure be reduced to writing by the disclosing party and sent to the receiving party.

(b) Receiving party shall:

(i) use the Confidential Information for the sole purpose of performing under the terms of this Agreement;

(ii) safeguard Confidential Information against disclosure to others with the same degree of care as it exercises with its own data of a similar nature;

(iii) not disclose Confidential Information to others (except to its employees, agents or consultants who are bound to the receiving party by a like obligation of confidentiality) without the express written permission of the disclosing party, except that the receiving party shall not be prevented from using or disclosing any of the Confidential Information that:

(A) the receiving party can demonstrate by written records was previously known to it;

(B) is now, or becomes in the future, public knowledge other than through acts or omissions of the receiving party;

(C) is lawfully obtained by the receiving party from sources independent of the disclosing party; or

(D)is required to be disclosed by law or a court of competent jurisdiction; and

(c) The secrecy obligations of the receiving party with respect to Confidential Information shall continue for a period ending five (5) years from the termination date of this Agreement.

10.3 **Assignability.** This Agreement may be assigned by UNIVERSITY, but is personal to LICENSEE and assignable by LICENSEE only with the written consent of UNIVERSITY. Notwithstanding anything to the contrary in the foregoing, the consent of UNIVERSITY will not be required if the assignment by LICENSEE is either to an Affiliate or in connection with the transfer of all or substantially all of the business of LICENSEE to which this Agreement relates, provided, further, that in each instance the assignee expressly assumes all obligations imposed on LICENSEE by this Agreement in writing and that the LICENSEE shall notify the UNIVERSITY of such event and inform the UNIVERSITY whether pre-assignment or pre-acquisition liability remain with the old LICENSEE or are assumed by the new LICENSEE.

10.4 **No Waiver.** No waiver by either party of any breach or default of any covenant or agreement set forth in this Agreement shall be deemed a waiver as to any subsequent and/or similar breach or default.

10.5 **Failure to Perform.** In the event of a failure of performance due under this Agreement and if it becomes necessary for either party to undertake legal action against the other on account thereof, then the prevailing party shall be entitled to reasonable attorneys' fees in addition to costs and necessary disbursements.

10.6 **Governing Laws.** THIS AGREEMENT SHALL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, but the scope and validity of any patent or patent application shall be governed by the applicable laws of the country of the patent or patent application.

10.7 **Force Majeure.** A party to this Agreement may be excused from any performance required herein if such performance is rendered impossible or unfeasible due to any catastrophe or other major event beyond its reasonable control, including, without limitation, war, riot, and insurrection; laws, proclamations, edicts, ordinances, or regulations; strikes, lockouts, or other serious labor disputes; and floods, fires, explosions, or other natural disasters. When such events have abated, the non-performing party's obligations herein shall resume.

10.8 **Headings.** The headings of the several sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

10.9 **Entire Agreement.** This Agreement embodies the entire understanding of the parties and supersedes all previous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof.

10.10 **Amendments.** No amendment or modification of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each party.

10.11 **Severability.** In the event that any of the provisions contained in this Agreement is held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provisions had never been contained in it.

IN WITNESS WHEREOF, both UNIVERSITY and LICENSEE have executed this Agreement, in duplicate originals, by their respective and duly authorized officers on the day and year written.

NAVIDEA BIOPHARMACEUTICALS, INC.: **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA:**

By: /s/ Thomas H. Tulip (Signature)

By: /s/ William J. Decker (Signature)

Name: Thomas H. Tulip, Ph.D.

William J. Decker, Ph.D.

Title: President & Chief Business Officer

Associate Director-
Technology Transfer

Date: 11 July 2014

Date: July 14, 2014

Exhibit 10.2

TERMINATION OF LICENSE AGREEMENT UCSD CONTROL #2008-03-0536

This termination agreement ("Termination Agreement") is made by and between Navidea Biopharmaceuticals, Inc., a Delaware corporation having an address at 5600 Blazer Parkway, Suite 200, Dublin, OH 43017-1367 ("LICENSEE") and The Regents of the University of California, a California corporation having its statewide administrative offices at 1111 Franklin Street, Oakland, California 94607-5200 ("UNIVERSITY"), represented by its San Diego campus having an address at University of California, San Diego, Technology Transfer Office, Mail Code 0910, 9500 Gilman Drive, La Jolla, California 92093-0910 ("UCSD").

This Termination Agreement is effective on the date of the last signature ("Effective Date").

RECITALS

WHEREAS, LICENSEE previously entered a license agreement, UCSD Control #2008-03-0536 effective April 9, 2008, as Neoprobe Corporation for the commercial development of the invention disclosed in UCSD Disclosure Docket No. SD1998-088 and titled "Macromolecular Carrier for Drug and Diagnostic Agent Delivery" made in the course of research at UCSD by Dr. David Vera.

WHEREAS, LICENSEE changed its name from Neoprobe Corporation to Navidea Biopharmaceuticals, Inc. effective January 5, 2012.

WHEREAS, LICENSEE and UNIVERSITY both desire, for their mutual benefit, to terminate the agreement UCSD Control #2008-03-0536 effective as of the Effective Date.

NOW, THEREFORE, the LICENSEE and UNIVERSITY thereby agree to terminate agreement UCSD Control #2008-03-0536 and further agree that the only provisions of that agreement that shall survive termination are:

Paragraph 7.4 (Disposition of Licensed Products on Hand);

Paragraph 8.1(c), and 8.1(d) (Limited Warranty);

Paragraph 8.2 (Indemnification);

Article 9 (USE OF NAMES AND TRADEMARKS);

Paragraph 10.2 (Secrecy); and

Paragraph 10.6 (Governing Laws).

IN WITNESS WHEREOF, both UNIVERSITY and LICENSEE have executed this Termination Agreement, in duplicate originals, by their respective and duly authorized officers on the day and year written.

NAVIDEA BIOPHARMACEUTICALS, INC.	THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
By: /s/ Thomas H. Tulip	By: /s/ William J. Decker
Name: Thomas H. Tulip, PhD	William J. Decker, Ph.D.
Title: President & Chief Business Officer	Associate Director-Technology Transfer
Date: 11 July 2014	Date: July 14, 2014

CONFIDENTIAL TREATMENT REQUESTED PURSUANT TO RULE 24B-2 Exhibit 10.3

Certain confidential portions of this Exhibit, indicated by [*], have been omitted pursuant to Rule 24b-2 of the Securities Act of 1934. The omitted materials have been filed separately with the U.S. Securities and Exchange Commission.

LICENSE AGREEMENT

BETWEEN

NAVIDEA BIOPHARMACEUTICALS, INC.

AND

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

FOR

CASE NO. SD1998-088

TABLE OF CONTENTS

LICENSE AGREEMENT

This agreement ("Agreement") is made by and between Navidea Biopharmaceuticals, Inc., a Delaware corporation having an address at 5600 Blazer Parkway, Suite 200, Dublin, OH 43017-1367 ("LICENSEE") and The Regents of the University of California, a California corporation having its statewide administrative offices at 1111 Franklin Street, Oakland, California 94607-5200 ("UNIVERSITY"), represented by its San Diego campus having an address at University of California, San Diego, Technology Transfer Office, Mail Code 0910, 9500 Gilman Drive, La Jolla, California 92093-0910 ("UCSD").

This Agreement is effective on the date of the last signature ("Effective Date").

RECITALS

WHEREAS, LICENSEE previously entered a license agreement UCSD Control #2008-03-0536, effective April 9, 2008 as Neoprobe Corporation for the commercial development of the Inventions for the Field and Term defined in the #2008-03-0536;

WHEREAS, LICENSEE changed its name from Neoprobe Corporation to Navidea Biopharmaceuticals, Inc. effective January 5, 2012;

WHEREAS, LICENSEE and UNIVERSITY both desire, for their mutual benefit, to terminate the license agreement UCSD Control #2008-03-0536 and replace in its entirety with this Agreement;

WHEREAS, the invention disclosed in UCSD Disclosure Docket No. SD1998-088 and titled "Macromolecular Carrier for Drug and Diagnostic Agent Delivery" ("Invention"), were made in the course of research at UCSD by Dr. David Vera (hereinafter the "Inventor") and are covered by Patent Rights as defined below;

WHEREAS, the research was sponsored in part by the Government of the United States of America and as a consequence this license is subject to overriding obligations to the Federal Government under 35 U.S.C. §§ 200-212 and applicable regulations;

WHEREAS, the Inventor is an employee of UCSD, and they are obligated to assign all of their right, title and interest in the Invention to UNIVERSITY;

WHEREAS, UNIVERSITY provided to LICENSEE a copy of a representation that the Inventor, to the extent that he is actually aware as of the date of signing of the representation, has not assigned said rights to a party other than The Regents of the University of California, and has not licensed said rights to any third party;

WHEREAS, UNIVERSITY is desirous that the Invention be developed and utilized to the fullest possible extent so that its benefits can be enjoyed by the general public;

WHEREAS, LICENSEE is desirous of obtaining certain rights from UNIVERSITY for commercial development, use, and sale of the Invention, and the UNIVERSITY is willing to grant such rights;

WHEREAS, LICENSEE and UNIVERSITY both desire for their mutual benefit to extend the Term (as defined below) of the Agreement beyond the expiration date of the Patent Rights (as defined below); and

WHEREAS, LICENSEE understands that, subject to the provisions of Article 10.2, UNIVERSITY may publish or otherwise disseminate information concerning the Invention and Technology (as defined below) at any time and that LICENSEE is paying consideration thereunder for its early access to the Invention and Technology, not continued secrecy therein.

NOW, THEREFORE, the parties agree:

ARTICLE 1. DEFINITIONS

The terms, as defined herein, shall have the same meanings in both their singular and plural forms.

1.1 "Affiliate" means any corporation or other business entity which is bound in writing by LICENSEE to the terms set forth in this Agreement and in which LICENSEE owns or controls, directly or indirectly, at least twenty percent (20%) of the outstanding stock or other voting rights entitled to elect directors, or in which LICENSEE is owned or controlled directly or indirectly by at least twenty percent (20%) of the outstanding stock or other voting rights entitled to elect directors; but in any country where the local law does not permit foreign equity participation of at least twenty percent (20%), then an "Affiliate" includes any company in which LICENSEE owns or controls or is owned or controlled by, directly or indirectly, the maximum percentage of outstanding stock or voting rights permitted by local law.

1.2 "Combination Product" means any product which is a Licensed Product (as defined below) and contains other product(s) or product component(s) that is not an excipient, diluant, adjuvant, buffer, labeling agent(s) such as radioisotope and fluorescent tag, and the like and (i) does not use Invention, Technology or Patent Rights (as defined below); (ii) the sale, use or import by itself does not contribute to or induce the infringement of Patent Rights; (iii) is sold separately by LICENSEE, its Sublicensee (as defined below) or an Affiliate; and (iv) enhances the market price of the final product(s) sold, used or imported by LICENSEE, its Sublicensee, or an Affiliate.

1.3 "Distributor" means a third party that is not a Related Party (as defined below)that acquires Licensed Product from LICENSEE, Sublicensee, or an Affiliate and resells directly or indirectly such Licensed Product to End Users.

1.4 “End User” means a person or an entity that acquires a Licensed Product for use in the Field rather than for development, resale or distribution.

1.5 “EPO Member States” means Austria, Belgium, Switzerland, Cyprus, Germany, Denmark, Spain, Finland, France, Turkey, Greece, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Portugal, Sweden, and the United Kingdom.

1.6 “Field” means for all diagnostic, detection and therapeutic uses in targeting of CD206 receptor positive cells, excluding diagnostic uses in the targeting of CD206 receptor positive cells residing in the lymph nodes with radio-labeled-carbohydrate-conjugated macromolecule covered by the license agreement #2002-03-0237.

1.7 “Indication” means a human clinical condition for which use of a Licensed Product requires regulatory approval by the United States Food and Drug Administration (FDA) or a foreign equivalent. Each Indication under development herein shall be sequentially identified as a “First Indication”, “Second Indication”, and so on, with the understanding that each Indication so identified is distinct from every other Indication under development or developed.

1.8 “Licensed Method” means any method that uses Technology, or that is claimed in Patent Rights (as defined below), the use of which would constitute, but for the license granted to LICENSEE under this Agreement, an infringement, an inducement to infringe or contributory infringement, of any pending or issued claim within Patent Rights.

1.9 “Licensed Product” means any service, composition or product that uses Technology, or that is claimed in Patent Rights, or that is produced by the Licensed Method, or the manufacture, use, sale, offer for sale, or importation of which would constitute, but for the license granted to LICENSEE under this Agreement, an infringement, an inducement to infringe or contributory infringement, of any pending or issued claim within the Patent Rights.

1.10 “Net Sales” means the gross amounts invoiced to third parties for Licensed Products sold or leased by LICENSEE, Sublicensee, or its Affiliate, or in any combination thereof, less the sum of the following actual and customary deductions where applicable and separately listed: cash, trade, or quantity discounts or rebates (as allowed under applicable law); sales tax, use tax, tariff, import/export duties or other excise taxes imposed on particular sales (except for value-added and income taxes imposed on the sales of Licensed Product in foreign countries); transportation charges; credits to customers because of rejections or returns, or transfers of Licensed Products without charge for charitable, promotional, non-clinical, clinical research or regulatory purposes. For purposes of calculating Net Sales, transfers to a Sublicensee or an Affiliate of Licensed Product under this Agreement without an invoice for (i) end use (but not resale) by the Sublicensee or Affiliate shall be treated as sales by LICENSEE at list price of LICENSEE, or (ii) resale by a Sublicensee or an Affiliate shall be treated as sales at the list price of the Sublicensee or Affiliate.

1.11 “Patent Costs” means all out-of-pocket expenses, except for the reimbursement paid by LICENSEE under another agreement with the University, for the preparation, filing, prosecution, and maintenance of all United States and foreign patents included in Patent Rights. Patent Costs shall also include out-of-pocket expenses for patentability opinions, inventorship determination,

preparation and prosecution of patent application, re-examination, re-issue, interference, and opposition activities related to patents or applications in Patent Rights.

1.12 “Patent Rights” means UNIVERSITY’s rights in any of the following: the US patent application (serial number 09/569,466, titled “MACROMOLECULAR CARRIER FOR DRUG AND DIAGNOSTIC AGENT DELIVERY”) disclosing and claiming the Invention, filed by Inventor and assigned to UNIVERSITY; and continuing applications thereof including divisions, substitutions, and continuations-in-part (but only to the extent the claims thereof are entirely supported in the specification and entitled to the priority date of the parent application); any patents issuing on said applications including reissues, reexaminations and extensions; and any corresponding foreign applications or patents.

1.13 “Related Party” means a corporation, firm, or other entity with which, or individual with whom, the LICENSEE, Sublicensee, Affiliate, or any combination thereof (or any of their respective stockholders, subsidiaries or Affiliates) have an agreement, understanding, or arrangement (for example, but not by way of limitation, an option to purchase stock or other equity interest, or an arrangement involving a division of revenue, milestone payments, profits, discounts, rebates, or allowances) unrelated to the sale or exploitation of the Licensed Products without which such other agreement, understanding, or arrangement, the amounts, if any, charged by the LICENSEE or Affiliate to such entity or individual for the Licensed Product would be higher than the invoice price actually received, or if such agreement, understanding, or arrangement results in the LICENSEE extending to such entity or individual lower prices for such Licensed Product than those charged to others without such agreement, understanding, or arrangement buying similar products or services in similar quantities.

1.14 "Sponsor’s Rights" means all the applicable provisions of any license to the United States Government executed by UNIVERSITY and the overriding obligations to the US Government under 35 U.S.C. §§ 200-212 and applicable governmental implementing and the overriding obligations to NIH under the sponsorship agreement with the same.

1.15 “Sublicense” means an agreement into which LICENSEE enters with a third party that is not, at the time of execution of such Sublicense agreement, an Affiliate of LICENSEE for the purpose of (i) granting certain rights; (ii) granting an option to certain rights; or (iii) forbearing the exercise of any rights, in each case, granted to LICENSEE under this Agreement. “Sublicensee” means a third party with whom LICENSEE enters into a Sublicense.

1.16 “Sublicense Fees” means all upfront fees, milestone payments and similar license fees received by LICENSEE from its Sublicensees in consideration for the grant of a Sublicense, but excluding:

(a) any royalty payments;

(b) payments for equity or debt securities of LICENSEE (except to the extent such payments exceed the fair market value of such securities upon date of receipt, in which case such premiums over fair market value shall be deemed to be “Sublicense Fees”);

(c) research or development funding to be applied directly to the future research

and/or development of Licensed Products provided, however that such payments shall not include executive and clerical salaries, legal costs (other than Patent Costs) or other costs not directly related to research,

(d) payments and reimbursement to LICENSEE of Patent Costs paid to UNIVERSITY by LICENSEE with respect to the filing, preparation, prosecution or maintenance of the Patent Rights; and

(e) milestone payments attributable to the achievement of any of the milestone events set forth in Section 3.1(c).

1.17 "Technology" means the written technical information relating to the Invention, excluding personal health information (PHI) and personal identity information (PII), which the Inventor may provide to LICENSEE during the Term of this Agreement

1.18 “Term” means on a country-by-country basis, the period of time beginning on the Effective Date and (i) ending on the third anniversary of the expiration date of last to expire valid claim in the Patent Rights covering the Licensed Product where no patent extension is granted, (ii) ending on the third anniversary of the expiration date of the last-to-expire patent extension covering the Licensed Product where patent extension is granted, or (iii) ending on the later of 1.18 (i) or (ii) where no Patent Rights exist but Technology is utilized .

1.19 “Territory” means worldwide to the extent this license may legally be granted.

1.20 “Third Party” means any individual or entity other than LICENSEE or UNIVERSITY or an Affiliate of LICENSEE or UNIVERSITY.

ARTICLE 2. GRANTS

2.1 **License**. Subject to the limitations set forth in this Agreement and Sponsor’s Rights, UNIVERSITY hereby grants to LICENSEE, and LICENSEE hereby accepts, a license under Patent Rights to make and have made, to use and have used, to sell and have sold, to offer for sale, and to import Licensed Products and to practice Licensed Methods and to use Technology, in the Field within the Territory and during the Term.

The license granted herein is exclusive for Patent Rights and non-exclusive for Technology.

2.2 **Sublicense.**

(a) The license granted in Section 2.1 includes the right of LICENSEE to grant sublicenses to third parties and Affiliates during the Term, through multiple tiers, but only for as long as the license from UNIVERSITY is exclusive.

(b) With respect to Sublicense granted pursuant to Paragraph 2.2(a), LICENSEE shall:

(i) not receive, or agree to receive, anything of value in lieu of cash as consideration from a third party under a Sublicense granted pursuant to Paragraph 2.2(a) without the express written consent of UNIVERSITY;

(ii) to the extent applicable, include all of the rights of and obligations due to UNIVERSITY (and, if applicable, the Sponsor's Rights) and contained in this Agreement;

(iii) promptly provide UNIVERSITY with a copy of each Sublicense issued; and

(iv) collect and guarantee payment of all payments due, directly or indirectly, to UNIVERSITY from Sublicensees and summarize and deliver all reports due, directly or indirectly, to UNIVERSITY from Sublicensees.

(c) Upon early termination of this Agreement for any reason (but not expiration as provided in Section 1.18), UNIVERSITY, at its sole discretion, shall determine whether LICENSEE shall cancel or assign to UNIVERSITY any and all Sublicenses.

2.3 **Reservation of Rights**. UNIVERSITY reserves the right to:

(a) use the Invention, Technology and Patent Rights for educational and research purposes;

(b) subject to the provisions of Article 10.2, publish or otherwise disseminate any information about the Invention and Technology at any time; and

(c) allow other nonprofit institutions to use and publish or otherwise disseminate any information about Invention, Technology and Patent Rights for educational and research purpose.

ARTICLE 3. CONSIDERATION

3.1 Fees and Royalties. The parties hereto understand that the fees and royalties payable by LICENSEE to UNIVERSITY under this Agreement are partial consideration for the license granted herein to LICENSEE under Technology, and Patent Rights. LICENSEE shall pay UNIVERSITY:

(a) a license issue fee of twenty five thousand dollars (US$25,000), within thirty (30) days after the Effective Date;

(b) license maintenance fees of twenty five thousand dollars (US$25,000) per year, payable on the first anniversary of the Effective Date and annually thereafter on each anniversary of the Effective Date; provided however, that LICENSEE's obligation to pay

this fee shall end on the date of the first commercial sale of a Licensed Product in the Territory;

(c) milestone payments in the amounts set forth below within forty-five (45) days after the achievement of each of the following events:

I. For the first Licensed Product to achieve the following milestone events in any Indication:

	Amount in US dollars	**Event**
A	$[*]	[*]
B	$[*]	[*]
C	$[*]	[*]
D	$[*]	[*]
E	$[*]	[*]

II. For the second and each subsequent Licensed Product to achieve the following milestone events in any Indication:

	Amount in US dollars	**Event**
A	$[*]	[*]
B	$[*]	[*]
C	$[*]	[*]
D	$[*]	[*]
E	$[*]	[*]

For the sake of clarity, should two phases of clinical trials, each of which would individually trigger a milestone payment, be combined, then both payments are due within forty-five (45) days after the initiation of the combined trail. For example, if Phase II and Phase III trials are combined for the first Indication of the Licensed Product, then both IB and IC above are due no later than initiation of the combined trial. Also, should accelerated approval occur, then milestone payments associated with Phase II or Phase III clinical trials that are not yet paid are due no later than forty-five (45) days after receipt of regulatory approval in any jurisdiction in the Territory to market and sell a Licensed Product in the relevant jurisdiction.

III. Upon achievement of the following aggregate Net Sales for all Licensed Products during the Term:

	Amount in US dollars	Event
A	$[*]	Upon accumulated Net Sales of [*] dollars ($[*])
B	$[*]	Upon accumulated Net Sales of [*] dollars ($[*])

(d) Earned royalty on Net Sales of Licensed Products by LICENSEE, Affiliate, Sublicensee, or any combination thereof when (A) the License Product is manufactured in a country with Patent Rights and sold in a country with Patent Rights, (B) the License Product is manufactured in a country with Patent Rights and sold in a country without Patent Rights, or (C) when the Licensed Product is manufactured in a country without Patent Rights and imported to a country with Patent Rights:

3. 1(d) Royalty Rate Table

Percent of earned royalty	
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, less than or equal to [*] US dollars ($[*])
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, greater than [*] US dollars ($[*]) but less than or equal to [*] US dollars ($[*])
[*]%	For accumulated Net Sales by LICENSEE, Affiliate, Sublicensee, or any combination thereof, to, including without limitation, End User and/or Distributor, greater than [*] US dollars ($[*])

provided, however, that the earned royalty due on Net Sales of:

(i) Licensed Products sold within three (3) years after the expiration date of the Patent Rights or the extension of the Patent Rights, and that would have infringed Patent Rights prior to expiration or extension of the Patent Rights will be deemed to be Licensed Product as consideration of the use of the Technology with a royalty during the first year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above, during the second year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above and during the third year of that three year period due at a royalty rate reduced to [*] percent ([*]%) of the rates listed above;

(ii) Licensed Products manufactured in a country without Patent Rights and sold in a country without Patent Rights will be deemed to be Licensed Product as consideration of the use of the Technology with a royalty rate of [*] percent ([*]%) of 3.1 (d) Royalty Rate Table;

(iii) Licensed Product sold to Distributor(s), shall be based on the gross amounts invoiced to Distributor(s) for Licensed Products and the value of any other consideration (for example, but not by way of limitation, payments for Licensed Product, transfer cost, a division of revenue, milestone payments, profits, or an option to purchase stock or other equity interest) received by LICENSEE, Sublicensee, Affiliate, or any combination thereof, less the sum of the following actual and customary deductions where applicable and separately listed: cash, trade, or quantity discounts or rebates (as allowed under applicable law); sales tax, use tax, tariff, import/export duties or other excise taxes imposed on particular sales (except for value-added and income taxes imposed on the sales of Licensed Product in foreign countries); transportation charges; credits because of rejections or returns ;

(iv) Combination Product by LICENSEE and/or its Affiliate(s) shall be calculated as below:

Earned Royalties due UNIVERSITY = [A/(A+B)] x applicable Royalty Rate on Net Sales of the Licensed Products applicable in (i), (ii), or (iii) x Net Sales of Combination Product, where:

A is the separate average sales price of the Licensed Product or Licensed Product components during the period to which the royalty calculation applies; and B is the average sales price of the separately listed sale prices of the individual products or product components included in such Combination Product that are not Licensed Products during the period to which the royalty calculation applies. If LICENSEE does not separately sell the Licensed Product or the B product or product components used in Combination Product, the purchase price paid by LICENSEE in the procurement of said products or product components shall be used. For any products in B for which LICENSEE has reduced its earned royalties payable to UNIVERSITY under 3.1(d)(v), this provision shall not apply.

(v) in the event LICENSEE or Affiliate is required to pay royalties to one or more third parties for patent rights necessary to make, use or sell Licensed Products, LICENSEE may deduct $[*] from the earned royalties payable to UNIVERSITY for every $[*] LICENSEE or Affiliate actually pays to said third parties; and

(vi) in no event shall the amount payable to UNIVERSITY in any calendar quarter be less than [*] percent ([*]%) of the amount without the deductions allowable under 3.1 (d) (iv) and/or 3.1 (d) (v);

(e) the applicable percentage ("Applicable Percentage" or "AP") according to the following schedules of all Sublicense Fees received by LICENSEE from its Sublicensees that are not earned royalties according to the following schedules::

	Time of Sublicense Grant	AP(%)
A	[*]	[*]%
B	[*]	[*]%
C	[*]	[*]%
D	[*]	[*]%
E	[*]	[*]%
F	[*]	[*]%
G	[*]	[*]%
H	[*]	[*]%

(f) on each and every Sublicense royalty payment received by LICENSEE from its Sublicensees on Net Sales of Licensed Product by Sublicensee, royalties based on the royalty rate of (i) [*] percent ([*]%) as applied to Net Sales (defined in 1.10) of Sublicensee to End User, and (ii) [*] percent ([*]%) as applied to Net Sales (defined in 3.1(d)(iii)) of Sublicensee to Distributor;

(g) beginning with the calendar year of first commercial sale of the first Licensed Product by LICENSEE, its Sublicensee, or an Affiliate, if the total earned royalties paid by LICENSEE under Paragraphs 3.1(d) and (f) to UNIVERSITY in any such year cumulatively amounts to less than twenty five thousand Dollars ($25,000) ("minimum annual royalty"), LICENSEE shall pay to UNIVERSITY on or before February 28 following the last quarter of such year the difference between the minimum annual royalty and the total earned royalty paid by LICENSEE for such year under Paragraphs 3.1(d) and (f); provided, however, that for the year of first commercial sale of the first Licensed Product, the amount of minimum annual royalty payable shall be pro-rated for the number of months remaining in that calendar year.

All fees and royalty payments specified in Paragraphs 3.1(a) through 3.1(g) above shall be paid by LICENSEE pursuant to Paragraph 4.3 and shall be delivered by LICENSEE to UNIVERSITY as noted in Paragraph 10.1.

For purposes of this Section 3.1, if any rights to develop, manufacture or commercialize Licensed Products are granted by LICENSEE to an Affiliate and thereafter such party ceases to be an Affiliate of LICENSEE, such party will not be deemed to be a Sublicensee hereunder, and the exercise of any such rights granted to such party will be

remain subject to the provisions of this Section 3.1 as if such party were an Affiliate and remains under a Sublicense.

3.2 **Patent Costs**. LICENSEE shall reimburse UNIVERSITY for all past (prior to the Effective Date) and future (on or after the Effective Date) Patent Costs, excluding any Patent Cost reimbursed by LICENSEE under the license agreement #2002-03-0237, within thirty (30) days following the date an itemized invoice is sent from UNIVERSITY to LICENSEE.

3.3 Due Diligence.

(a) LICENSEE shall, either directly or through its Affiliate(s) or Sublicensee(s) to:

(i) diligently proceed with the development, manufacture and sale of Licensed Products;
(ii) annually spend not less than [*] dollars (US$[*]) for the development of Licensed Products during the first [*] years of this Agreement. LICENSEE recognizes the expertise of the Inventor and his associates in Invention and is committed to contract the Inventor and his associate to further develop Invention at UCSD at US$[*] a year for a total of [*] years. LICENSEE may credit the amount actually paid to UCSD under such contract against its obligation under this paragraph;
(iii) submit an Investigational New Drug (IND) covering the first Indication of a Licensed Product to the United States FDA or its foreign equivalent before [*];
(iv) enroll first patient in a Phase II clinical trial for the first Indication of a Licensed Product before [*];
(v) enroll first patient in a Phase III clinical trial for the first indication of a Licensed Product before [*];
(vi) submit an Investigational New Drug (IND) covering the first Indication of a Licensed Product that is not solely a radio-labeled-carbohydrate-conjugated macromolecule to the United States FDA or its foreign equivalent before [*]
(vii) submit new drug application (NDA) or its foreign equivalent for the first indication of a Licensed Product before [*];
(viii) market Licensed Products within [*] months of receiving regulatory approval to market such Licensed Products;
(ix) fill the market demand for Licensed Products following commencement of marketing at any time during the term of this Agreement and
(x) obtain all necessary governmental approvals for the use and sale of Licensed Products in the Territory.

(b) If LICENSEE fails to perform any of its obligations specified in Paragraphs 3.1(c) and 3.3(a)(i)-(x), then UNIVERSITY shall have the right and option to either terminate this Agreement or change LICENSEE's exclusive license to a nonexclusive license provided that LICENSEE has not cured such failure to

perform within ninety (90) days written notice from the UNIVERSITY of said failure. This right, if exercised by UNIVERSITY, supersedes the rights granted in Article 2.

ARTICLE 4. REPORTS, RECORDS AND PAYMENTS

4.1 **Reports.**

(a) **Progress Reports**.

(i) Beginning six months after Effective Date and ending on the date of first commercial sale of a Licensed Product in the United States, with respect to each six month period ending June 30 and December 31 during such period, LICENSEE shall report to UNIVERSITY LICENSEE's (and Affiliate's and Sublicensee's) activities for the preceding six months to develop and test all Licensed Products and obtain governmental approvals necessary for marketing the same. Such semi-annual reports shall be due within sixty (60) days of the reporting period and include a summary of work completed, summary of work in progress, current schedule of anticipated events or milestones, market plans for introduction of Licensed Products, and summary of resources (dollar value) spent in the reporting period. The reports referred to in this Section 4.1(a) should be marked with the following title and case number: "License Agreement between UCSD and Navidea Biopharmaceuticals for case SD1998-088". Reports shall be submitted as attachment to UCSD's email address: tto-reports@ucsd.edu.

(ii) LICENSEE shall report to UNIVERSITY the date of a first commercial sale of a Licensed Product anywhere in the Territory. Beginning three months after Effective Date and ending on the date of first commercial sale, the UNIVERSITY may request the status of such first commercial sale.

(b) **Royalty Reports**.

After the first commercial sale of a Licensed Product anywhere in the Territory, LICENSEE shall submit to UNIVERSITY quarterly royalty reports on or before February 28, May 31, August 31 and November 30 of each year. Each royalty report shall cover LICENSEE's (and each Affiliate's and Sublicensee's) most recently completed calendar quarter and shall show:

(i) the date of first commercial sale of a Licensed Product in each country in the Territory;

(ii) the gross sales, deductions as provided in Paragraph 1.10 (Net Sales), and

Net Sales during the most recently completed calendar quarter and the royalties, in US dollars, payable with respect thereto;

(iii) the number of each type of Licensed Product sold;

(iv) Sublicense Fees and royalties received during the most recently completed calendar quarter in US dollars, and the portion thereof payable to UNIVERSITY hereunder;

(v) the method used to calculate the royalties; and

(vi) the exchange rates used.

If no sales of Licensed Products have been made and no Sublicensing Revenue has been received by LICENSEE during any reporting period, LICENSEE shall so report. The reports referred to in this Section 4.1(b) should be marked with the following title and case number: "License Agreement between UCSD and Navidea Biopharmaceuticals for case SD1998-088". Reports shall be submitted as attachment to UCSD's email address: tto-reports@ucsd.edu.

4.2 **Records & Audits.**

(a) LICENSEE shall keep, and shall require its Affiliates and Sublicensees to keep, accurate and correct records of all Licensed Products manufactured, used, and sold, and Sublicense Fees received under this Agreement. Such records shall be retained by LICENSEE for at least five (5) years following a given reporting period.

(b) Upon five (5) business days prior notice to LICENSEE all records shall be available during normal business hours for inspection at the expense of UNIVERSITY by UNIVERSITY's Internal Audit Department or by a Certified Public Accountant selected by UNIVERSITY and in compliance with the other terms of this Agreement for the sole purpose of verifying reports and payments or other compliance issues. Such inspector shall not disclose to UNIVERSITY any information other than information relating to the accuracy of reports and payments made under this Agreement or other compliance issues. In the event that any such inspection shows an under reporting and underpayment in excess of five percent (5%) for any twelve-month (12-month) period, then LICENSEE shall pay the cost of the audit as well as any additional sum that would have been payable to UNIVERSITY had the LICENSEE reported correctly, plus an interest charge at a rate of ten percent (10%) per year. Such interest shall be calculated from the date the correct payment was due to UNIVERSITY up to the date when such payment is actually made by LICENSEE. For underpayment not in excess of five percent (5%) for any twelve-month (12-month) period, LICENSEE shall pay the difference within

thirty (30) days without interest charge or inspection cost. UNIVERSITY may only conduct one such audit per calendar year.

4.3 **Payments.**

(a) All fees, reimbursements and royalties due to UNIVERSITY shall be paid in United States dollars and all checks shall be made payable to "The Regents of the University of California", referencing UNIVERSITY's taxpayer identification number, 95-6006144, and sent to UNIVERSITY according to Paragraph 10.1 (Correspondence). When Licensed Products are sold in currencies other than United States dollars, LICENSEE shall first determine the earned royalty in the currency of the country in which Licensed Products were sold and then convert the amount into equivalent United States funds, using the exchange rate quoted in the Wall Street Journal on the last business day of the applicable reporting period.

(b) Royalty Payments.

(i) Royalties shall accrue when Licensed Products are invoiced, or if not invoiced, when delivered to a third party or Affiliate.

(ii) LICENSEE shall pay earned royalties quarterly on or before February 28, May 31, August 31 and November 30 of each calendar year. Each such payment shall be for earned royalties accrued within LICENSEE's most recently completed calendar quarter.

(iii) Royalties earned on sales occurring or under a Sublicense granted pursuant to this Agreement in any country outside the United States shall not be reduced by LICENSEE for any taxes, fees, or other charges imposed by the government of such country on the payment of royalty income, except that all payments made by LICENSEE in fulfillment of UNIVERSITY's tax liability in any particular country may be credited against earned royalties or fees due UNIVERSITY for that country. LICENSEE shall pay all bank charges resulting from the transfer of such royalty payments.

(iv) If at any time legal restrictions prevent the prompt remittance of part or all royalties by LICENSEE with respect to any country where a Licensed Product is sold or a Sublicense is granted pursuant to this Agreement, LICENSEE shall convert the amount owed to UNIVERSITY into US currency and shall pay UNIVERSITY directly from its US sources of funds for as long as the legal restrictions apply.

(v) LICENSEE shall not collect royalties from, or cause to be paid on Licensed Products sold to the account of the US Government or any agency thereof as provided for in the license to the US Government.

(vi) In the event that any patent or patent claim within Patent Rights is held invalid in a final decision by a patent office from which no appeal or additional patent prosecution has been or can be taken, or by a court of competent jurisdiction and last resort and from which no appeal has or can be taken, all obligation to pay royalties based solely on that patent or claim or any claim patentably indistinct therefrom shall cease as of the date of such final decision. LICENSEE shall not, however, be relieved from paying any royalties that accrued before the date of such final decision, that are based on another patent or claim not involved in such final decision, or that are based on the use of Technology.

(vii) Royalty payments under Article 3, recoveries and settlements under Article 5, and royalty reports under 4.1(b) shall be rendered for any and all Licensed Products even if due after expiration of the Agreement.

(c) Late Payments. In the event royalty, reimbursement and/or fee payments are not received by UNIVERSITY when due, LICENSEE shall pay to UNIVERSITY interest charges at a rate of ten percent (10%) per year. Such interest shall be calculated from the date payment was due until actually received by UNIVERSITY.

ARTICLE 5. PATENT MATTERS

5.1 **Patent Prosecution and Maintenance.**

(a) Provided that LICENSEE has reimbursed UNIVERSITY for Patent Costs pursuant to Paragraph 3.2, UNIVERSITY shall diligently prosecute and maintain the United States and, if available, foreign patents, and applications in Patent Rights using counsel of its choice. For purposes of clarity, if LICENSEE is not current in reimbursing UNIVERSITY for such patent prosecution costs, UNIVERSITY shall have no obligation to incur any new Patent Costs under this Agreement or to further prosecute Patent Rights or file any new patents under Patent Rights. UNIVERSITY shall provide LICENSEE with copies of all relevant documentation relating to such prosecution and LICENSEE shall keep this documentation confidential. The UNIVERSITY's counsel shall take instructions only from UNIVERSITY, and all patents and patent applications in Patent Rights shall be assigned solely to UNIVERSITY. UNIVERSITY shall in any event control all patent filings and all patent prosecution decisions and related filings (e.g. responses to office actions) shall be at UNIVERSITY's final discretion (prosecution includes, but is not limited to, interferences, oppositions and any other *inter partes* matters originating in a patent office).

(b) UNIVERSITY shall consider amending any patent application in Patent Rights to

include claims reasonably requested by LICENSEE to protect the products contemplated to be sold by LICENSEE under this Agreement.

(c) LICENSEE may elect to terminate its reimbursement obligations with respect to any patent application or patent in Patent Rights upon three (3) months' written notice to UNIVERSITY. UNIVERSITY shall use reasonable efforts to curtail further Patent Costs for such application or patent when such notice of termination is received from LICENSEE. UNIVERSITY, in its sole discretion and at its sole expense, may continue prosecution and maintenance of said application or patent, and LICENSEE shall have no further license with respect thereto. Non-payment of any portion of Patent Costs or Anticipated Costs with respect to any application or patent may be deemed by UNIVERSITY as an election by LICENSEE to terminate its reimbursement obligations with respect to such application or patent. UNIVERSITY is not obligated at any time to file, prosecute, or maintain Patent Rights in a country, where, for that country's patent application LICENSEE is not paying Patent Costs, or to file, prosecute, or maintain Patent Rights to which LICENSEE has terminated its license hereunder.

(d) LICENSEE shall apply for an extension of the term of any patent in Patent Rights if appropriate under the Drug Price Competition and Patent Term Restoration Act of 1984 and/or European, Japanese and other foreign counterparts of this law. LICENSEE shall prepare all documents for such application, and UNIVERSITY shall execute such documents and take any other additional action as LICENSEE reasonably requests in connection therewith.

5.2 **Patent Infringement.**

(a) In the event that UNIVERSITY (to the extent of the actual knowledge of the licensing professional responsible for the administration of this Agreement) or LICENSEE learns of infringement of potential commercial significance of any patent licensed under this Agreement, the knowledgeable party will provide the other (i) with written notice of such infringement and (ii) with any evidence of such infringement available to it (the "Infringement Notice"). Subject to Sections 5.2(b) and 5.2(c), during the period in which, and in the jurisdiction where, LICENSEE has exclusive rights under this Agreement, neither UNIVERSITY nor LICENSEE will notify a third party (including the infringer) of infringement or put such third party on notice of the existence of any Patent Rights without first obtaining consent of the other. If LICENSEE notifies a third party of infringement or puts such third party on notice of the existence of any Patent Rights with respect to such infringement without first obtaining the written consent of UNIVERSITY and UNIVERSITY is sued in declaratory judgment, UNIVERSITY shall have the right to terminate this Agreement immediately without the obligation to provide sixty (60) days' notice as set forth in Paragraph 7.1. Both UNIVERSITY and LICENSEE will use their diligent efforts to cooperate with each other to terminate such infringement without litigation.

(b) If infringing activity of potential commercial significance by the infringer has not been abated within ninety (90) days following the date of the Infringement Notice, LICENSEE may institute suit for patent infringement against the infringer. UNIVERSITY may voluntarily join such suit at its own expense, but may not thereafter commence suit against the infringer for the acts of infringement that are the subject of LICENSEE's suit or any judgment rendered in that suit. LICENSEE may not join UNIVERSITY in a suit initiated by LICENSEE without UNIVERSITY'S prior written consent. If, in a suit initiated by LICENSEE, UNIVERSITY is involuntarily joined other than by LICENSEE, LICENSEE will pay any costs incurred by UNIVERSITY arising out of such suit, including but not limited to, any legal fees of counsel that UNIVERSITY selects and retains to represent it in the suit.

(c) If, within a hundred and twenty (120) days following the date the Infringement
Notice takes effect, infringing activity of potential commercial significance by the infringer has not been abated and if LICENSEE has not brought suit against the infringer, UNIVERSITY may institute suit for patent infringement against the infringer. If UNIVERSITY institutes such suit, LICENSEE may not join such suit without UNIVERSITY'S consent and may not thereafter commence suit against the infringer for the acts of infringement that are the subject of UNIVERSITY'S suit or any judgment rendered in that suit.

(d) Notwithstanding anything to the contrary in this Agreement, in the event that the infringement or potential infringement pertains to an issued patent included within the Patent Rights and written notice is given under any statute expediting litigation (e.g. the Drug Price Competition and Patent Term Restoration Act of 1984 and/or foreign counterparts of this Law) ("Act"), then the party in receipt of such notice under the Act (in the case of UNIVERSITY to the extent of the actual knowledge of the licensing officer responsible for the administration of this Agreement) shall provide the Infringement Notice to the other party promptly. If the time period is such that the LICENSEE will lose the right to pursue legal remedy for infringement by not notifying a third party or by not filing suit, the notification period and the time period to file suit will be accelerated to within forty-five (45) days of the date of such notice under the Act to either party.

(e) Any recovery or settlement received in connection with any suit will first be shared by UNIVERSITY and LICENSEE equally to cover the litigation costs each incurred, and next shall be paid to UNIVERSITY or LICENSEE to cover any litigation costs it incurred in excess of the litigation costs of the other. In any suit initiated by LICENSEE, any recovery in excess of litigation costs will be shared between LICENSEE and UNIVERSITY as follows: (i) for any recovery other than amounts paid for willful infringement: (A) UNIVERSITY will receive fifteen percent (15%) of the recovery if UNIVERSITY was not a party in the litigation and did not incur any litigation costs; (B) UNIVERSITY will receive

twenty-five percent (25%) of the recovery if UNIVERSITY was a party in the litigation, but did not incur any litigation costs, including the provisions of Paragraph 5.2(b) above, or (C) UNIVERSITY will receive fifty percent (50%) of the recovery if UNIVERSITY incurred any litigation costs in connection with the litigation; and (ii) for any recovery for willful infringement, UNIVERSITY will receive fifty percent (50%) of the recovery. In any suit initiated by UNIVERSITY, any recovery in excess of litigation costs will belong to UNIVERSITY. UNIVERSITY and LICENSEE agree to be bound by all determinations of patent infringement, validity, and enforceability (but no other issue) resolved by any adjudicated judgment in a suit brought in compliance with this Section 5.2.

(f) Any agreement made by LICENSEE for purposes of settling litigation or other dispute shall comply with the requirements of Section 2.2 (Sublicenses) of this Agreement.

(g) Each party will cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party who initiated the suit (unless such suit is being jointly prosecuted by the parties).

(h) Any litigation proceedings will be controlled by the party bringing the suit, except that UNIVERSITY may be represented by counsel of its choice in any suit brought by LICENSEE.

5.3 **Patent Marking.** LICENSEE shall mark all Licensed Products made, used or sold under the terms of this Agreement, or their containers, in accordance with the applicable patent marking laws. LICENSEE shall be responsible for all monetary and legal liabilities arising from or caused by (i) failure to abide by applicable patent marking laws and (ii) any type of incorrect or improper patent marking.

ARTICLE 6. GOVERNMENTAL MATTERS

6.1 **Governmental Approval or Registration.** If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, LICENSEE shall assume all legal obligations to do so. LICENSEE shall notify UNIVERSITY if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. LICENSEE shall make all necessary filings and pay all costs including fees, penalties, and all other out-of-pocket costs associated with such reporting or approval process.

6.2 **Export Control Laws.** LICENSEE shall observe all applicable United States and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

6.3 **Preference for United States Industry.** If LICENSEE sells a Licensed Product or Combination Product in the US, LICENSEE shall manufacture said product substantially in the US. Notwithstanding the foregoing, at LICENSEE's request, UNIVERSITY will reasonably cooperate with LICENSEE in seeking a waiver to the requirement for substantial manufacture in the United States according to 35 U.S. CODE § 204. To the extent such waiver if granted, LICENSEE shall comply with the terms granted in the waiver.

ARTICLE 7. TERMINATION OR EXPIRATION OF THE AGREEMENT

7.1 **Termination by UNIVERSITY**.

(a) If LICENSEE fails to perform or violates any term of this Agreement, then UNIVERSITY may give written notice of default ("Notice of Default") to LICENSEE. If LICENSEE fails to cure the default within ninety (90) days of the Notice of Default, UNIVERSITY may terminate this Agreement and the license granted herein by a second written notice ("Notice of Termination") to LICENSEE. If a Notice of Termination is sent to LICENSEE, this Agreement shall automatically terminate on the effective date of that notice. Termination shall not relieve LICENSEE of its obligation to pay any fees owed at the time of termination and shall not impair any accrued right of UNIVERSITY. During the term of any such Notice of Default or period to cure, to the extent the default at issue is a failure to pay past or ongoing Patent Costs as provided for under this Agreement, UNIVERSITY shall have no obligation to incur any new Patent Costs under this Agreement and shall have no obligation to further prosecute Patent Rights or file any new patents under Patent Rights.

(b) This Agreement will terminate immediately, without the obligation to provide ninety (90) days' notice as set forth in Paragraph 7.1(a), if LICENSEE files a claim including in any way the assertion that any portion of UNIVERSITY's Patent Rights is invalid or unenforceable where the filing is by the LICENSEE, a third party on behalf of the LICENSEE, or a third party at the written urging of the LICENSEE.

(c) This Agreement shall automatically terminate without the obligation to provide ninety (90) days' notice as set forth in Paragraph 7.1(a) upon the filing of a petition for relief under the United States Bankruptcy Code by or against the LICENSEE as a debtor or alleged debtor.

7.2 **Termination by LICENSEE.**

(a) LICENSEE shall have the right at any time and for any reason to terminate this Agreement upon a ninety (90) day written notice to UNIVERSITY. Said notice shall state LICENSEE's reason for terminating this Agreement.

(b) Any termination under Paragraph 7.2(a) shall not relieve LICENSEE of any obligation or liability accrued under this Agreement prior to termination or rescind any payment made to UNIVERSITY or action by LICENSEE prior to the time termination becomes effective. Termination shall not affect in any manner any rights of UNIVERSITY arising under this Agreement prior to termination.

7.3 **Survival on Termination or Expiration.** The following Paragraphs and Articles shall survive the termination or expiration of this Agreement:

(a) Article 4 (REPORTS, RECORDS AND PAYMENTS);

(b) Paragraph 7.3 (Survival on Termination or Expiration);

(c) Paragraph 7.4 (Disposition of Licensed Products on Hand);

(d) Paragraph 7.5 (Fully-Paid License);

(e) Article 8 (LIMITED WARRANTY AND INDEMNIFICATION);

(f) Article 9 (USE OF NAMES AND TRADEMARKS);

(g) Section 10.2 hereof (Secrecy);

(h) Paragraph 10.5 (Failure to Perform); and

(i) Paragraph 10.6 (Governing Laws).

7.4 **Disposition of Licensed Products on Hand.** Upon termination of this Agreement, LICENSEE may dispose of all previously made or partially made Licensed Product within a period of one hundred and twenty (120) days of the effective date of such termination provided that the sale of such Licensed Product by LICENSEE, its Sublicensees, or Affiliates shall be subject to the terms of this Agreement, including but not limited to the rendering of reports and payment of royalties required under this Agreement.

7.5 **Fully-Paid License**. Upon expiration of the Term (but not termination under Section 7.1 or 7.2) the license granted to LICENSEE in Section 2.1 shall become a perpetual, irrevocable, fully-paid license.

ARTICLE 8. LIMITED WARRANTY AND INDEMNIFICATION

8.1 **Limited Warranty.**

(a) UNIVERSITY warrants to the LICENSEE that it has the lawful right to grant this license. This warranty does not include Patent Rights to the extent assigned, or otherwise licensed, by UNIVERSITY's inventor to third parties.

(b) The license granted herein and the associated Technology are is provided "AS IS" and without WARRANTY OF MERCHANTABILITY or WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE or any other warranty, express or implied. UNIVERSITY makes no representation or warranty that the Licensed

Product, Licensed Method or the use of Patent Rights or Technology will not infringe any other patent or other proprietary rights.

(c) UNIVERSITY WILL NOT BE LIABLE FOR ANY LOST PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST BUSINESS, ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT, OR FOR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, OR OTHER SPECIAL DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO THIS AGREEMENT FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF UNIVERSITY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. ALSO, UNIVERSITY WILL NOT BE LIABLE FOR ANY DIRECT DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO PATENT RIGHTS TO THE EXTENT ASSIGNED, OR OTHERWISE LICENSED, BY UNIVERSITY'S INVENTOR TO THIRD PARTIES.

(d) Nothing in this Agreement shall be construed as:

(i) a warranty or representation by UNIVERSITY as to the validity or scope of any Patent Rights;

(ii) a warranty or representation that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or shall be free from infringement of patents of third parties;

(iii) an obligation to bring or prosecute actions or suits against third parties for patent infringement or misappropriation of Technology except as provided in Section 5.2 hereof;

(iv) conferring by implication, estoppel or otherwise any license or rights under any patents of UNIVERSITY other than Patent Rights as defined in this Agreement, regardless of whether those patents are dominant or subordinate to Patent Rights; or

(v) an obligation to furnish any know-how not provided in Patent Rights and Technology; or

(vi) an obligation to update Technology.

8.2 **Indemnification.**

(a) LICENSEE will, and will require Sublicensees to, indemnify, hold harmless, and defend UNIVERSITY and its officers, employees, and agents; the sponsors of the research that led to the Invention; and the inventor of patents or patent applications under Patent Rights, and their employers; against any and all claims, suits, losses, damages, costs, fees, and expenses resulting from, or arising out of, the exercise of this license or any Sublicense. This indemnification will include, but will not be limited to, any product liability.

(b) LICENSEE, at its sole cost and expense, shall insure its activities in connection with the work under this Agreement and obtain, keep in force and maintain insurance or an equivalent program of self insurance as follows:

(i) comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (A) each occurrence, five million dollars (US$5,000,000); (B) products/completed operations aggregate, ten million dollars (US$10,000,000); (C) personal and advertising injury, five million dollars (US$5,000,000); and (D) general aggregate (commercial form only), ten million dollars (US$10,000,000). If the above insurance is written on a claims-made form, it shall continue for three (3) years following termination or expiration of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date

(ii) Worker's Compensation as legally required in the jurisdiction in which the LICENSEE is doing business; and

(iii) the coverage and limits referred to above shall not in any way limit the liability of LICENSEE.

(c) LICENSEE shall furnish UNIVERSITY with certificates of insurance showing compliance with all requirements. Such certificates shall: (i) provide for thirty (30) day advance written notice to UNIVERSITY of any modification; (ii) indicate that UNIVERSITY has been endorsed as an additionally insured party under the coverage referred to above; and (iii) include a provision that the coverage shall be primary and shall not participate with nor shall be excess over any valid and collectable insurance or program of self-insurance carried or maintained by UNIVERSITY.

(d) UNIVERSITY shall notify LICENSEE in writing of any claim or suit brought against UNIVERSITY in respect of which UNIVERSITY intends to invoke the provisions of this Article. LICENSEE shall keep UNIVERSITY informed on a current basis of its defense of any claims under this Article. LICENSEE will not

settle any claim against UNIVERSITY without UNIVERSITY's written consent, where (i) such settlement would include any admission of liability or admission of wrong doing on the part of the indemnified party, (ii) such settlement would impose any restriction on UNIVERSITY/indemnified party's conduct of any of its activities, or (iii) such settlement would not include an unconditional release of UNIVERSITY/indemnified party from all liability for claims that are the subject matter of the settled claim.

ARTICLE 9. USE OF NAMES AND TRADEMARKS

9.1 Except as provided in 9.3, nothing contained in this Agreement confers any right to use in advertising, publicity, or other promotional activities any name, trade name, trademark, or other designation of either party hereto (including contraction, abbreviation or simulation of any of the foregoing). Unless required by law, the use by LICENSEE of the name, "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity, or other promotional activities is prohibited, without the express written consent of UNIVERSITY.

9.2 UNIVERSITY may disclose to the Inventor the terms and conditions of this Agreement upon their request. If such disclosure is made, UNIVERSITY shall request the Inventor not disclose such terms and conditions to others.

9.3 UNIVERSITY may acknowledge the existence of this Agreement and the extent of the grant in Article 2 to third parties, but UNIVERSITY shall not disclose the financial terms of this Agreement to third parties, except where UNIVERSITY is required by law to do so, such as under the California Public Records Act. LICENSEE hereby grants permission for UNIVERSITY (including UCSD) to include LICENSEE's name and a link to LICENSEE's website in UNIVERSITY's and UCSD's annual reports and on UNIVERSITY's (including UCSD's) websites that showcase technology transfer-related stories.

ARTICLE 10. MISCELLANEOUS PROVISIONS

10.1 **Correspondence.** Any notice or payment required to be given to either party under this Agreement shall be deemed to have been properly given and effective:

(a) on the date of delivery if delivered in person,
(b) five (5) days after mailing if mailed by first-class or certified mail, postage paid, to the respective addresses given below, or to such other address as is designated by written notice given to the other party, or
(c) upon confirmation by recognized national overnight courier, confirmed facsimile transmission, or confirmed electronic mail, to the following addresses or facsimile numbers of the parties.

If sent to LICENSEE:

Navidea Biopharmaceuticals Inc.
5600 Blazer Parkway, Suite 200
Dublin, OH 43017-1367
Attention: President, CEO
Phone: 614-793-7500
Fax: 614-793-7522

If sent to UNIVERSITY by mail:
University of California, San Diego
Technology Transfer Office
9500 Gilman Drive, Mail Code 0910
La Jolla, CA 92093-0910
Attention: Assistant Vice Chancellor

If sent to UNIVERSITY by overnight delivery:
University of California, San Diego
Technology Transfer Office
10300 North Torrey Pines Road
Torrey Pines Center North, Third Floor
La Jolla, CA 92037
Attention: Assistant Vice Chancellor

10.2 **Secrecy.**

(a) "Confidential Information" shall mean with respect to UNIVERSITY, confidential information, including Technology, relating to the Invention and disclosed by UNIVERSITY to LICENSEE during the term of this Agreement, and with respect to LICENSEE, all trade secrets or confidential or proprietary information or tangible materials provided by LICENSEE received by UNIVERSITY hereunder (including any reports delivered pursuant to Section 4.1)in the course of its performance of its obligations hereunder, which if disclosed in writing shall be marked "Confidential", or if first disclosed otherwise, shall within thirty (30) days of such disclosure be reduced to writing by the disclosing party and sent to the receiving party.

(b) Receiving party shall:

(i) use the Confidential Information for the sole purpose of performing under the terms of this Agreement;

(ii) safeguard Confidential Information against disclosure to others with the same degree of care as it exercises with its own data of a similar nature;

(iii) not disclose Confidential Information to others (except to its employees, agents or consultants who are bound to the receiving party by a like obligation of confidentiality) without the express written permission of the disclosing party, except that the receiving party shall not be prevented from using or disclosing any of the Confidential Information that:

(A) the receiving party can demonstrate by written records was previously known to it;

(B) is now, or becomes in the future, public knowledge other than through acts or omissions of the receiving party;

(C) is lawfully obtained by the receiving party from sources independent of the disclosing party; or

(D)is required to be disclosed by law or a court of competent jurisdiction; and

(c) The secrecy obligations of the receiving party with respect to Confidential Information shall continue for a period ending five (5) years from the termination date of this Agreement.

10.3 **Assignability.** This Agreement may be assigned by UNIVERSITY, but is personal to LICENSEE and assignable by LICENSEE only with the written consent of UNIVERSITY. Notwithstanding anything to the contrary in the foregoing, the consent of UNIVERSITY will not be required if the assignment by LICENSEE is either to an Affiliate or in connection with the transfer of all or substantially all of the business of LICENSEE to which this Agreement relates, provided, further, that in each instance the assignee expressly assumes all obligations imposed on LICENSEE by this Agreement in writing and that the LICENSEE shall notify the UNIVERSITY of such event and inform the UNIVERSITY whether pre-assignment or pre-acquisition liability remain with the old LICENSEE or are assumed by the new LICENSEE.

10.4 **No Waiver.** No waiver by either party of any breach or default of any covenant or agreement set forth in this Agreement shall be deemed a waiver as to any subsequent and/or similar breach or default.

10.5 **Failure to Perform.** In the event of a failure of performance due under this Agreement and if it becomes necessary for either party to undertake legal action against the other on account thereof, then the prevailing party shall be entitled to reasonable attorneys' fees in addition to costs and necessary disbursements.

10.6 **Governing Laws.** THIS AGREEMENT SHALL BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA, but the scope and validity of any patent or patent application shall be governed by the applicable laws of the country of the patent or patent application.

10.7 **Force Majeure.** A party to this Agreement may be excused from any performance required herein if such performance is rendered impossible or unfeasible due to any catastrophe or other major event beyond its reasonable control, including, without limitation, war, riot, and insurrection; laws, proclamations, edicts, ordinances, or regulations; strikes, lockouts, or other serious labor disputes; and floods, fires, explosions, or other natural disasters. When such events have abated, the non-performing party's obligations herein shall resume.

10.8 **Headings.** The headings of the several sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

10.9 **Entire Agreement.** This Agreement embodies the entire understanding of the parties and supersedes all previous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof.

10.10 **Amendments.** No amendment or modification of this Agreement shall be valid or binding on the parties unless made in writing and signed on behalf of each party.

10.11 **Severability.** In the event that any of the provisions contained in this Agreement is held to be invalid, illegal, or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if the invalid, illegal, or unenforceable provisions had never been contained in it.

IN WITNESS WHEREOF, both UNIVERSITY and LICENSEE have executed this Agreement, in duplicate originals, by their respective and duly authorized officers on the day and year written.

NAVIDEA BIOPHARMACEUTICALS, INC.:	**THE REGENTS OF THE UNIVERSITY OF CALIFORNIA:**
By: /s/ Thomas H. Tulip (Signature)	By: /s/ William J. Decker (Signature)
Name: Thomas H. Tulip, Ph.D.	William J. Decker, Ph.D.
Title: President & Chief Business Officer	Associate Director-Technology Transfer
Date: 11 July 2014	Date: July 14, 2014

Exhibit 10.4
Execution Version

FIRST AMENDMENT TO
LOAN AND SECURITY AGREEMENT

THIS **FIRST AMENDMENT** to Loan and Security Agreement (this "**Amendment**") is entered into as of July 15, 2014, by and between **OXFORD FINANCE LLC**, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314 ("**Oxford**"), as collateral agent (in such capacity, "**Collateral Agent**"), the Lenders listed on Schedule 1.1 of the Loan Agreement (as defined below) or otherwise party thereto from time to time (each a "**Lender**" and collectively, the "**Lenders**") including Oxford in its capacity as a Lender and **NAVIDEA BIOPHARMACEUTICALS, INC.** , a Delaware corporation with offices located at 5600 Blazer Parkway, Dublin, OH 43017 ("**Borrower**").

RECITALS

A. Collateral Agent, Lenders and Borrower have entered into that certain Loan and Security Agreement dated as of March 4, 2014 (as amended from time to time, the "**Loan Agreement**").

B. Lenders have extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Collateral Agent and Lenders (i) permit Borrower to enter into a joint venture with R-NAV, LLC, and in connection therewith, (a) provide an exclusive license of certain intellectual property to R-NAV, LLC and (b) make certain cash Investments in R-NAV, LLC as more fully set forth below, and (ii) make certain other revisions to the Loan Agreement as more fully set forth herein.

D. Collateral Agent and Lenders have agreed to modify such consent and to amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Section 13.1 (Definitions). The following terms and their respective definitions hereby are added or amended and restated in their entirety, as applicable, to Section 13.1 of the Loan Agreement as follows:

"**Permitted Indebtedness**" means (a) the Obligations, (b) Indebtedness existing on the Effective Date and set forth on the Perfection Certificate delivered to Collateral Agent as of the Effective Date and Permitted Refinancings thereof, (c) Indebtedness consisting of capitalized lease obligations and purchase money Indebtedness, in each case incurred by Borrower to finance the acquisition, repair, improvement or construction of fixed or capital assets of such Person and Permitted Refinancings thereof, provided that (i) the aggregate outstanding principal amount of all such Indebtedness does not exceed Five Hundred Thousand Dollars ($500,000.00) at any time and (ii) the principal amount of such Indebtedness does not exceed the lower of the cost or fair market value of the property so acquired or built or of such repairs or improvements financed with such Indebtedness (each measured at the time of such acquisition, repair, improvement or construction is made), (d) Subordinated Debt, (e) Indebtedness in respect of financing of insurance premiums not to exceed Three Hundred Thousand Dollars ($300,000.00) in any fiscal year and (f) Indebtedness in an aggregate principal amount not to exceed Six Hundred Sixty-Six Thousand Six Hundred Sixty-Six Dollars ($666,666) incurred in connection with the R-NAV, LLC Transaction; provided the same is, at all times, subject to a Subordination Agreement in favor of Collateral Agent, in form and content reasonably acceptable to Collateral Agent.

"**Permitted Investments**" means (a) Investments existing on the Closing Date and set forth on the Perfection Certificate delivered to Collateral Agent as of the Effective Date, (b) subject to Section 6.6, Investments in cash and Cash Equivalents, (c) endorsements for collection or deposit in the ordinary course of business consistent with past practice, (d) extensions of trade credit (other than to Affiliates of Borrower or any Subsidiary) in the ordinary course of business, (e) Investments received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business, (f) loans and advances to employees of Borrower to finance travel, entertainment and relocation expenses and other business purposes in the ordinary course of business in an aggregate outstanding principal amount not to exceed Two Hundred Fifty Thousand Dollars ($250,000.00) at any time, (g) Investments consisting of non-cash loans made by Borrower to officers, directors and employees of Borrower which are used by such Persons to purchase simultaneously the stock of Borrower, (h) Investments permitted under Borrower's Investment Policy delivered to Collateral Agent prior to the Closing Date, (i) joint ventures or strategic alliances in the ordinary course of business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support, but in no event consisting of Investments of cash, Cash Equivalents or tangible assets; provided, that Borrower shall be permitted to enter into the R-NAV, LLC Transaction and to (1) make a cash investment not to exceed the principal amount of One Million Dollars ($1,000,000) in R-NAV, LLC in connection with the R-NAV Transaction and (2) grant exclusive licenses relating to the Borrower's Manocept technology and limited to the field of drugs for the diagnosis and treatment of rheumatologic conditions in humans and animals, including rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis and further including manifestations

of the joint, cartilage, synovium or enthuses, required under (and in accordance with) the terms of the R-NAV Transaction Documents, (j) Permitted Acquisitions and (k) Investments in foreign Subsidiaries of Borrower in an aggregate amount not to exceed Fifty Thousand Dollars ($50,000.00) in any fiscal year.

"**Permitted Licenses**" are (A) licenses of over-the-counter software that is commercially available to the public, (B) non-exclusive and exclusive licenses for the use of the Intellectual Property of Borrower or any of its Subsidiaries entered into in the ordinary course of business, provided, that, with respect to each such license described in clause (B), (i) no Event of Default has occurred or is continuing at the time of such license; (ii) the license constitutes an arm's length transaction, the terms of which, on their face, do not provide for a sale or assignment of any Intellectual Property and do not restrict the ability of Borrower or any of its Subsidiaries, as applicable, to pledge, grant a security interest in or lien on, or assign or otherwise Transfer any Intellectual Property; (iii) in the case of any exclusive license, (x) Borrower delivers ten (10) days' prior written notice and a brief summary of the terms of the proposed license to Collateral Agent and the Lenders and delivers to Collateral Agent and the Lenders copies of the final executed licensing documents in connection with the exclusive license promptly upon consummation thereof, and (y) any such license could not result in a legal transfer of title of the licensed property but may be exclusive in respects other than territory and may be exclusive as to territory only as to discrete geographical areas outside of the United States; and (iv) all upfront payments, royalties, milestone payments or other proceeds arising from the licensing agreement that are payable to Borrower or any of its Subsidiaries are paid to a Deposit Account that is governed by a Control Agreement and (C) exclusive licenses relating to the Borrower's Manocept technology and limited to the field of drugs for the diagnosis and treatment of rheumatologic conditions in humans and animals, including rheumatoid arthritis, psoriatic arthritis, ankylosing spondylitis and further including manifestations of the joint, cartilage, synovium or enthuses, granted pursuant to that certain "Navidea License Agreement" to be entered into by and between R-NAV, LLC and the Borrower, under and in accordance with the terms of the R-NAV Transaction Documents.

"**R-NAV, LLC Transaction**" means the actions to be completed in accordance with the R-NAV Transaction Documents.

"**R-NAV Transaction Documents** " means (i) that certain "Series A Preferred Unit Purchase Agreement" by and among R-NAV, LLC and the Purchasers, including the Borrower, party thereto, (ii) that certain "Navidea Services Agreement" to be entered into by and between R-NAV, LLC and the Borrower, (iii) that certain "Navidea License Agreement" to be entered into by and between R-NAV, LLC and the Borrower, (iv) that certain "Option to Acquire TcRA Imaging, Inc." to be entered into by and between R-NAV, LLC and the Borrower, (v) that certain "Option to Acquire SnRA Theragnostics, Inc." and (vi) that certain Promissory Note in the principal amount of Six Hundred Sixty-Six Thousand Six Hundred and Sixty-Six Dollars ($666,666) to be granted by Borrower in favor of R-NAV, LLC; each in form and content reasonably acceptable to Collateral Agent and Lenders.

2.2 Collateral Agent and the Lenders hereby consent to Borrower's execution, delivery and performance of the R-NAV Transaction Documents.

2.3 Collateral Agent and the Lenders hereby consent to Borrower's consummation of the R-NAV, LLC Transaction in accordance with the R-NAV Transaction Documents as outlined above.

3. Limitation of Amendment.

3.1 The amendments set forth in **Section 2** above, are effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Collateral Agent or any Lender may now have or may have in the future under or in connection with any Loan Document.

3.2 This Amendment shall be construed in connection with and as part of the Loan Documents and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents, except as herein amended, are hereby ratified and confirmed and shall remain in full force and effect.

4. Representations and Warranties. To induce Collateral Agent and Lenders to enter into this Amendment, Borrower hereby represents and warrants to Collateral Agent and Lenders as follows:

4.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as amended by this Amendment;

4.3 The organizational documents of Borrower delivered to Collateral Agent and Lenders on the Effective Date, or subsequent thereto, remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

4.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, have been duly authorized;

4.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as amended by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower; and

4.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

5. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

6. Effectiveness. This Amendment shall be deemed effective upon the due execution and delivery to Collateral Agent and Lenders of (i) this Amendment by each party hereto, (ii) fully executed copies of the R-NAV Transaction Documents, (iii) a Subordination Agreement from R-NAV, LLC in favor of Collateral Agent and (iv) Borrower's payment of all Lenders' Expenses incurred through the date of this Amendment.

[*Balance of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

COLLATERAL AGENT:

OXFORD FINANCE LLC

By: /s/ Mark Davis
Name: Mark Davis
Title: Vice President of Finance

LENDER:

OXFORD FINANCE, LLC

By: /s/ Mark Davis
Name: Mark Davis
Title: Vice President of Finance

BORROWER:

NAVIDEA BIOPHARMACEUTICALS, INC.

By: /s/ Brent L. Larson
Name: Brent L. Larson
Title: EVP & CFO

[***Signature Page to First Amendment to Loan and Security Agreement***]

Exhibit 10.5
Execution Version

SUBORDINATION AGREEMENT

This Subordination Agreement (the "Agreement") is made as of July 15, 2014, by and between **R-NAV, LLC** ("Creditor") and **OXFORD FINANCE LLC**, a Delaware limited liability company with an office located at 133 North Fairfax Street, Alexandria, Virginia 22314, in its capacity as Collateral Agent (as hereinafter defined) for the Lenders (as hereinafter defined).

Recitals

A. Pursuant to a Loan and Security Agreement (such agreement as it may be amended from time to time, the "Loan Agreement"), dated as of March 4, 2014, among **OXFORD FINANCE LLC** ("Oxford;" in its capacity as Collateral Agent for the Lenders, the "Collateral Agent"), the lenders from time to time a party thereto (the "Lenders"), including, without limitation, Oxford, **NAVIDEA BIOPHARMACEUTICALS, INC.** ("Borrower") has requested and/or obtained certain loans or other credit accommodations from Lenders to Borrower which are or may be from time to time secured by assets and property of Borrower.

B. Creditor has extended loans or other credit accommodations to Borrower, and/or may extend loans or other credit accommodations to Borrower from time to time.

C. In order to induce Lenders to extend credit to Borrower and, at any time or from time to time, at Lenders' option, to make such further loans, extensions of credit, or other accommodations to or for the account of Borrower, or to purchase or extend credit upon any instrument or writing in respect of which Borrower may be liable in any capacity, or to grant such renewals or extension of any such loan, extension of credit, purchase, or other accommodation as Lenders may deem advisable, Creditor is willing to subordinate: (i) all of Borrower's indebtedness to Creditor (including, without limitation, principal, premium (if any), interest, fees, charges, expenses, costs, professional fees and expenses, and reimbursement obligations), whether presently existing or arising in the future (the "Subordinated Debt") to all of Borrower's indebtedness and obligations to the Collateral Agent and/or the Lenders; and (ii) all of Creditor's security interests, if any, to all security interests in the Borrower's property in favor of the Collateral Agent and/or the Lenders.

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. Creditor hereby acknowledges and agrees that (i) Creditor does not have any lien on or security interest in any property of Borrower, whether now owned or hereafter acquired, including, without limitation, the "Collateral" as defined in the Loan Agreement, (ii) Borrower is prohibited from granting to the Creditor any lien on, security interest in, or negative pledge with respect to, any property of Borrower, whether now owned or hereafter acquired, including, without limitation, the Collateral and (iii) the Creditor shall not take any lien on, security interest in, or negative pledge with respect to, any property of Borrower, whether now owned or hereafter acquired, including, without limitation, the Collateral. In furtherance of the foregoing, Creditor hereby subordinates to the Collateral Agent and the Lenders any security interest or lien that Creditor may have in any property of Borrower, including without limitation, the Collateral as defined in the Loan Agreement. Notwithstanding the respective dates of attachment or perfection of any security interest of Creditor and the security interest of the Collateral Agent and the Lenders, the lien and security interest of the Collateral Agent and the Lenders in the property of Borrower, whether now owned or hereafter acquired, including, without limitation, the Collateral, shall at all times be senior to the lien and security interest of Creditor.

2. All Subordinated Debt is subordinated in right of payment to all obligations of Borrower to the Collateral Agent and the Lenders now existing or hereafter arising, together with all costs of collecting such obligations (including attorneys' fees), including, without limitation, all interest accruing after the commencement by or against Borrower of any bankruptcy, reorganization or similar proceeding, and all obligations under the Loan Agreement (the "Senior Debt").

3. Creditor will not demand or receive from Borrower (and Borrower will not pay to Creditor) all or any part of the Subordinated Debt, by way of payment, prepayment, setoff, lawsuit or otherwise, nor will Creditor exercise any remedy with respect to the Subordinated Debt or any property of the Borrower, whether now owned or hereafter acquired, including, without limitation, the Collateral, nor will Creditor accelerate the Subordinated Debt, or commence, or cause to commence, prosecute or participate in any administrative, legal or equitable action against Borrower, until such time as (i) the Senior Debt is indefeasibly paid in full in cash, and (ii) the Lenders have no commitment or obligation to lend any further funds to Borrower, and (iii) all financing agreements among the Collateral Agent and the Lenders and Borrower are terminated. The foregoing notwithstanding, provided that an Event of Default (as defined in the Loan Agreement) has not occurred and is not continuing and would not exist immediately after such payment, Creditor shall be entitled to receive each regularly scheduled, non-accelerated (i) payment of non-default interest plus (ii) payment of principal, provided that the aggregate amount of principal payments shall not exceed Six Hundred Sixty-Six Thousand Six Hundred Sixty-Six Dollars ($666,666), as and when due and payable in accordance with the terms of that certain Promissory Note in the principal amount of Six Hundred Sixty-Six Thousand Six Hundred Sixty-Six Dollars ($666,666) dated as of July __, 2014 granted by Borrower in favor of R-NAV, LLC, as in effect on the date hereof or as modified with the written consent of the Collateral Agent and the Lenders. Nothing in the foregoing paragraph shall prohibit Creditor from converting all or any part of the Subordinated Debt into equity securities of Borrower which do not have any call, put or other conversion features that would obligate Borrower to pay any money (including the payment of any dividends or other distributions for so long as the Senior Debt remains outstanding) or deliver any other securities or consideration to the holder.

4. Creditor shall hold in trust for the Collateral Agent and the Lenders and promptly deliver to the Collateral Agent in the form received (except for endorsement or assignment by Creditor where required by the Collateral Agent), for application to the Senior Debt, any payment, distribution, security or proceeds received by Creditor with respect to the Subordinated Debt other than in accordance with this Agreement.

5. In the event of Borrower's insolvency, reorganization or any case or proceeding under any bankruptcy or insolvency law or laws relating to the relief of debtors, these provisions shall remain in full force and effect, and the Collateral Agent's and the Lenders'

claims against Borrower and the estate of Borrower shall be paid in full before any payment is made to Creditor.

6. Until the Senior Debt is indefeasibly paid in full in cash and Lenders' arrangements to lend any funds to Borrower have been terminated, Creditor irrevocably appoints the Collateral Agent as Creditor's attorney-in-fact, and grants to the Collateral Agent a power of attorney with full power of substitution, in the name of Creditor or in the name of the Collateral Agent and/or the Lenders, for the use and benefit of the Collateral Agent and the Lenders, without notice to Creditor, to perform at the Collateral Agent's option the following acts in any bankruptcy, insolvency or similar proceeding involving Borrower:

(i) To file the appropriate claim or claims in respect of the Subordinated Debt on behalf of Creditor if Creditor does not do so prior to 30 days before the expiration of the time to file claims in such proceeding and if the Collateral Agent elects, in its sole discretion, to file such claim or claims;

(ii) To accept or reject any plan of reorganization or arrangement on behalf of Creditor and to otherwise vote Creditor's claims in respect of any Subordinated Debt in any manner that the Collateral Agent deems appropriate for the enforcement of its rights hereunder.

7. Creditor shall immediately affix a legend to the instruments evidencing the Subordinated Debt stating that the instruments are subject to the terms of this Agreement, in substantially the form attached hereto as Annex I. By the execution of this Agreement, Creditor hereby authorizes the Collateral Agent and the Lenders to amend any financing statements filed by Creditor against Borrower as follows: "In accordance with a certain Subordination Agreement by and among the Secured Party, the Debtor and Oxford Finance LLC, in its capacity as Collateral Agent, the Secured Party has subordinated any security interest or lien that Secured Party may have in any property of the Debtor to the security interest of Oxford Finance LLC and the Lenders identified therein in all assets of the Debtor, notwithstanding the respective dates of attachment or perfection of the security interest of the Secured Party and Oxford Finance LLC and the Lenders."

8. Neither the Borrower nor the Creditor may amend the terms of any Subordinated Debt without the prior written consent of the Collateral Agent and the Lenders. Without limiting the foregoing, no amendment of the documents evidencing or relating to the Subordinated Debt shall directly or indirectly modify the provisions of this Agreement in any manner which might terminate or impair the subordination of the Subordinated Debt or the subordination of any security interest or lien that Creditor may have in any property of Borrower. By way of example, such instruments shall not be amended to (i) increase the rate of interest with respect to the Subordinated Debt, or (ii) accelerate the payment of the principal or interest or any other portion of the Subordinated Debt. The Collateral Agent and the Lenders shall have the sole and exclusive right to restrict or permit, or approve or disapprove, the sale, transfer or other disposition of any of the property or assets of the Borrower, including, without limitation, the Collateral, except in accordance with the terms of the Senior Debt. Upon written notice from the Collateral Agent of the Collateral Agent's and the Lenders' agreement to release its lien on all or any portion of the Collateral in connection with the sale, transfer or other disposition thereof by the Collateral Agent and the Lenders (or by Borrower with consent of the Collateral Agent and the Lenders), Creditor shall be deemed to have also, automatically and simultaneously, released any lien or security interest on such Collateral, and Creditor shall upon written request by the Collateral Agent, immediately take such action as shall be necessary or appropriate to evidence and confirm such release. All proceeds resulting from any such sale, transfer or other disposition shall be applied first to the Senior Debt until payment in full thereof, with the balance, if any, to the Subordinated Debt, or to any other entitled party. If Creditor fails to release any lien or security interest as required hereunder, Creditor hereby appoints the Collateral Agent as attorney in fact for Creditor with full power of substitution to release Creditor's liens and security interests as provided hereunder. Such power of attorney being coupled with an interest shall be irrevocable.

9. All necessary action on the part of the Creditor, its officers, directors, partners, members and shareholders, as applicable, necessary for the authorization of this Agreement and the performance of all obligations of Creditor hereunder has been taken. This Agreement constitutes the legal, valid and binding obligation of Creditor, enforceable against Creditor in accordance with its terms. The execution, delivery and performance of and compliance with this Agreement by Creditor will not (i) result in any material violation or default of any term of any of the Creditor's charter, formation or other organizational documents (such as Articles or Certificate of Incorporation, bylaws, partnership agreement, operating agreement, etc.) or (ii) violate any material applicable law, rule or regulation.

10. If, at any time after payment in full of the Senior Debt any payments of the Senior Debt must be disgorged by the Collateral Agent or the Lenders for any reason (including, without limitation, the bankruptcy of Borrower), this Agreement and the relative rights and priorities set forth herein shall be reinstated as to all such disgorged payments as though such payments had not been made and Creditor shall immediately pay over to the Collateral Agent all payments received with respect to the Subordinated Debt to the extent that such payments would have been prohibited hereunder. At any time and from time to time, without notice to Creditor, the Collateral Agent and the Lenders may take such actions with respect to the Senior Debt as the Collateral Agent and the Lenders, in their sole discretion, may deem appropriate, including, without limitation, terminating advances to Borrower, increasing the principal amount, extending the time of payment, increasing applicable interest rates, renewing, compromising or otherwise amending the terms of any documents affecting the Senior Debt and any collateral securing the Senior Debt, and enforcing or failing to enforce any rights against Borrower or any other person. No such action or inaction shall impair or otherwise affect the Collateral Agent's and the Lenders' rights hereunder.

11. This Agreement shall bind any successors or assignees of Creditor and shall benefit any successors or assigns of the Collateral Agent and the Lenders. This Agreement shall remain effective until terminated in writing by the Collateral Agent. This Agreement is solely for the benefit of Creditor and the Collateral Agent and the Lenders and not for the benefit of Borrower or any other party. Creditor further agrees that if Borrower is in the process of refinancing any portion of the Senior Debt with a new lender, and if the Collateral Agent and/or the Lenders makes a request of Creditor, Creditor shall agree to enter into a new subordination agreement with the new lender on substantially the terms and conditions of this Agreement.

12. Creditor hereby agrees to execute such documents and/or take such further action as the Collateral Agent and the Lenders may at any time or times reasonably request in order to carry out the provisions and intent of this Agreement, including, without limitation, ratifications and confirmations of this Agreement from time to time hereafter, as and when requested by the Collateral Agent.

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

14. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without giving effect to conflicts of laws principles. Creditor and the Collateral Agent submit to the exclusive jurisdiction of the state and federal courts located in New York, New York in any action, suit, or proceeding of any kind, against it which arises out of or by reason of this Agreement. CREDITOR AND COLLATERAL AGENT WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN.

15. This Agreement represents the entire agreement with respect to the subject matter hereof, and supersedes all prior negotiations, agreements and commitments. Creditor is not relying on any representations by the Collateral Agent, the Lenders or Borrower in entering into this Agreement and Creditor has kept and will continue to keep itself fully apprised of the financial and other condition of Borrower. This Agreement may be amended only by written instrument signed by Creditor and the Collateral Agent.

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IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

OXFORD FINANCE LLC, as
Collateral Agent

By: /s/ Mark Davis
Name: Mark Davis
Title: Vice President of Finance

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

CREDITOR:

R-NAV, LLC

By: /s/ Gilbert Gonzales
Name: Gilbert Gonzales
Title: Chief Executive Officer

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

The undersigned approves of the terms of this Agreement.

BORROWER:

NAVIDEA BIOPHARMACEUTICALS, INC.

By: /s/ Brent L. Larson
Name: Brent L. Larson
Title: EVP & CFO

Annex I
Legend to be added to Subordinated Debt instruments

“THIS UNSECURED PROMISSORY NOTE (AND ALL PAYMENT AND ENFORCEMENT PROVISIONS HEREIN) (THE “NOTE”) IS SUBJECT TO THE TERMS OF A SUBORDINATION AGREEMENT DATED AS OF JULY __, 2014, BY AND AMONG THE HOLDER (AS DEFINED HEREIN), THE COMPANY (AS DEFINED HEREIN) AND OXFORD FINANCE LLC (THE “SUBORDINATION AGREEMENT”). IN THE EVENT OF ANY INCONSISTENCY BETWEEN THIS NOTE AND THE SUBORDINATION AGREEMENT, THE TERMS OF THE SUBORDINATION AGREEMENT SHALL CONTROL.”

July 28, 2014

Montaur Capital Partners LLC
Englewood, NJ
Attn: Luc Maasdorp

Gentlemen:

This letter ("Agreement") is to confirm our mutual understanding with respect to the terms and conditions under which Montaur Capital Partners LLC ("Consultant") agrees to provide Navidea Biopharmaceuticals, Inc. ("Navidea") with Consulting Services during the period from July 1, 2014 until the termination of this Agreement as provided below (the "Consulting Period").

As used herein, the term "Consulting Services" means the services of Consultant's principal, Michael M. Goldberg, M. D. ("Dr. Goldberg") as interim chief executive officer of Navidea, and that this agreement is for the personal services of Dr. Goldberg.

In exchange for performing the Consulting Services, regardless of the amount of time devoted by Consultant or Dr. Goldberg to the performance thereof, Navidea agrees to pay Consultant a flat monthly fee of $15,000, payable in arrears. The parties acknowledge that no compensation will be paid by Navidea to Consultant or to Dr. Goldberg for Dr. Goldberg's services as interim chief executive officer, and that the monthly fee payable to Consultant under this Agreement is intended only to compensate Consultant for additional costs and resources Consultant will be required to incur or redirect due to the diversion of Dr. Goldberg from the management and other services he provides to Consultant occasioned by his service as Navidea's interim chief executive officer.

During the Consulting Period, either through the performance of Consulting Services or otherwise, Consultant may acquire proprietary and confidential information (herein "Information") with respect to the business and research activities of Navidea. Consultant agrees to keep confidential such Information and not to divulge any such Information to others. Specifically, Consultant agrees that it will not directly or indirectly, publish or disclose to others, except with the written consent of Navidea, any Information, data or methods of manufacture received or obtained from Navidea, nor use such Information in any way, commercially or otherwise, except in performing the Consulting Services. This obligation of confidentiality and non-use shall continue until three (3) years after the termination of this Agreement, but shall not apply to Information which (i) becomes a matter of public knowledge through no fault of Consultant; (ii) is rightfully received by Consultant from a third party without restriction on disclosure; (iii) is independently developed by Consultant without the use of Information; or (iv) is rightfully in Consultant's possession prior to its disclosure to Consultant by Navidea.

Consultant hereby irrevocably transfer and assign to Navidea without further compensation, any and all of its right, title and interest in and to all designs, ideas, discoveries, inventions, products, computer programs, source code, procedures, improvements, documents, information and materials made,

conceived or developed by Consultant alone or with others, which result from or relate to the Consulting Services ("Work Product"), including, but not limited to, all copyrightable works and copyrights, patent rights, trade secrets and trademarks, any right to claim authorship of Work Product, or any right to object to any distortion or other modification of Work Product by Navidea. Notwithstanding this assignment and transfer, if any Work Product incorporates or relies upon works developed by Consultant prior to the effective date of this Agreement, Consultant shall continue to retain ownership of thereof, but Consultant hereby licenses Navidea to use, or have third parties use on Navidea's behalf, such preexisting works as is reasonably required to fully exploit the Consulting Services performed hereunder. Consultant agrees, during and for one year following the term of the Agreement to: (i) disclose promptly in writing to Navidea all Work Product; and (ii) to sign and provide any and all documents and render any assistance that is reasonably necessary for Navidea to obtain any patent, copyright, trademark or other protection for Work Product. In case any invention is described in a patent application or is disclosed to third parties by Consultant within one (1) year after the Consulting Services have been completed, it shall be presumed that the invention was conceived or made during the period in which the Consulting Services were rendered, and the invention will be assigned to Navidea as set forth in this Agreement, provided that the invention results from or relates to the Consulting Services. If the invention was made by Consultant prior to any association with Navidea or was made without the Information or resources of Navidea, then Consultant need not assign the invention to the Company as set forth herein.

At the expiration of this Agreement, Consultant agrees to promptly deliver to Navidea all documents, notes, or other papers supplied to it by Navidea in connection with the Consulting Services, which were in Consultant's possession and under its control during the time Consultant provided the Consulting Services to Navidea. Consultant agrees that it will not make or retain or give away any copies of such documents.

Either party may terminate this Agreement with ten (10) business days' prior written notice to the other. Early termination of this Agreement by Navidea shall not relieve Navidea of any liability for payment of consulting fees that accrued prior to the date of termination of the Agreement, nor relieve Consultant of any obligations with respect to the confidentiality and non-use of Information, the transfer of rights in any Work Product, or the return to Navidea of any documents, notes or other papers.

It is understood and agreed that the status of Consultant and Dr. Goldberg shall be that of an independent contractor and not that of an employee of Navidea, and neither will be entitled to any of the benefits available to employees of Navidea. It is further understood and agreed that no representations have been made to Consultant or Dr. Goldberg by Navidea that performance of the Consulting Services described herein will lead to an offer of permanent employment with Navidea.

This Agreement shall be construed and governed by the laws of the State of Ohio and adjudicated within the exclusive jurisdiction of the courts having jurisdiction over Franklin County, Ohio.

If the foregoing terms and conditions meet with your understanding and approval, please show your acceptance and agreement by executing this letter in duplicate at the place indicated below and returning one of the executed duplicates to us, whereupon this letter shall constitute the agreement between Consultant and Navidea with respect to the Consulting Services.

Very truly yours,

Navidea Biopharmaceuticals, Inc.

By: /s/ Brent L. Larson
Brent L. Larson
Executive Vice President and CFO

Accepted and agreed to:

Montaur Capital Partners LLC

By: /s/ Luc Maasdorp
Luc Maasdorp, Associate

Exhibit 31.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael M. Goldberg, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Navidea Biopharmaceuticals, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 11, 2014

/s/ Michael M. Goldberg
Michael M. Goldberg, M.D.
Interim Chief Executive Officer

Exhibit 31.2

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Brent L. Larson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Navidea Biopharmaceuticals, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

August 11, 2014

/s/ Brent L. Larson

Brent L. Larson
Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORT PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, 18 U.S.C. SECTION 1350

The undersigned hereby certifies that he is the duly appointed and acting Chief Executive Officer of Navidea Biopharmaceuticals, Inc. (the "Company") and hereby further certifies as follows:

(1) The periodic report containing financial statements to which this certificate is an exhibit 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 periodic report to which this certificate is an exhibit fairly presents, in all material respects, the financial condition and results of operations of the Company.

In witness whereof, the undersigned has executed and delivered this certificate as of the date set forth opposite his signature below.

August 11, 2014

/s/ Michael M. Goldberg

Michael M. Goldberg, M.D.
Interim Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF PERIODIC FINANCIAL REPORT PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002, 18 U.S.C. SECTION 1350

The undersigned hereby certifies that he is the duly appointed and acting Chief Financial Officer of Navidea Biopharmaceuticals, Inc. (the "Company") and hereby further certifies as follows:

(1) The periodic report containing financial statements to which this certificate is an exhibit 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 periodic report to which this certificate is an exhibit fairly presents, in all material respects, the financial condition and results of operations of the Company.

In witness whereof, the undersigned has executed and delivered this certificate as of the date set forth opposite his signature below.

August 11, 2014

/s/ Brent L. Larson

Brent L. Larson
Executive Vice President and Chief Financial Officer