INTREXON CORP
Form 10-Q
November 07, 2013
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended September 30, 2013

OR

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

For the transition period from _____ to _____.

Commission File Number: 001-36042

INTREXON CORPORATION

(Exact name of registrant as specified in its charter)

Virginia	**26-0084895**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**
20374 Seneca Meadows Parkway	
Germantown, Maryland	**20876**
(Address of principal executive offices)	**(Zip Code)**

(301) 556-9900

(Registrant s telephone number, including area code)

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

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 x 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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x 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 x (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of November 1 2013, 96,992,159 shares of common stock, no par value per share, were outstanding.

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INTREXON CORPORATION

FORM 10-Q

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RheoSwitch Therapeutic System® is our registered trademark in the United States and *LEAP and mAbLogix* are our common law trademarks in the United States. Other trademarks, trade names and service marks appearing in this report are the property of their respective owners.

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Special Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the federal securities laws, which statements involve substantial risks and uncertainties. All statements, other than statements of historical facts, included in this Quarterly Report on Form 10-Q regarding our strategy, future events, future operations, future financial position, future revenue, projected costs, prospects, plans, objectives of management and expected market growth are forward-looking statements. The words anticipate, believe, estimate, expect, intend, may, plan, project, would and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. These forward-looking statements include, among other things, statements about:

- our current and future exclusive channel collaborations (ECCs);
- developments concerning our collaborators;
- our ability to successfully enter new markets or develop additional products, whether with our collaborators or independently;
- competition from existing technologies and products or new technologies and products that may emerge;
- actual or anticipated variations in our operating results;
- actual or anticipated fluctuations in our competitors or our collaborators operating results or changes in their respective growth rates;
- our cash position;
- market conditions in our industry;
- our ability, and the ability of our collaborators, to protect our intellectual property and other proprietary rights and technologies;
- our ability, and the ability of our collaborators, to adapt to changes in laws or regulations and policies;

- the ability of our collaborators to secure any necessary regulatory approvals to commercialize any products developed under the ECCs;
- the rate and degree of market acceptance of any products developed by a collaborator under an ECC;
- our ability to retain and recruit key personnel;
- our expectations related to the use of proceeds from our initial public offering; and
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing.

Forward-looking statements may also concern our expectations relating to AquaBounty Technologies, Inc. We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report on Form 10-Q.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this Quarterly Report on Form 10-Q, particularly in Part II, Item 1A. Risk Factors, that could cause actual results or events to differ materially from the forward-looking statements that we make. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments that we may make.

You should read this Quarterly Report on Form 10-Q, the documents that we reference in this Quarterly Report on Form 10-Q, the audited consolidated financial statements and related notes thereto included in the Prospectus that forms a part of the Company s Registration Statement on Form S-1 (File No. 333-189853), which was filed with the Securities and Exchange Commission pursuant to Rule 424 promulgated under the Securities Act of 1933, as amended, on August 8, 2013 and the documents that we have filed as exhibits completely and with the understanding that our actual future results may be materially different from what we expect. We do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

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PART I. FINANCIAL INFORMATION

Item 1. Consolidated Financial Statements

Intrexon Corporation and Subsidiaries

Consolidated Balance Sheets

(Unaudited)

(Amounts in thousands, except share and per share data)	September 30, 2013	December 31, 2012
Assets		
Current assets		
Cash and cash equivalents	$ 61,222	$ 10,403
Short-term investments	136,672	260
Receivables		
Trade	195	141
Related parties	4,538	531
Other	616	35
Prepaid expenses and other	2,992	2,163
Total current assets	206,235	13,533
Long-term investments	81,109	
Equity securities	107,567	83,116
Property, plant and equipment, net	17,020	18,687
Intangible assets, net	42,263	29,506
Goodwill	13,846	
Investment in affiliate	5,000	5,726
Other assets	1,158	1,078
Total assets	$ 474,198	$ 151,646

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

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Intrexon Corporation and Subsidiaries

Consolidated Balance Sheets

(Unaudited)

(Amounts in thousands, except share and per share data)	September 30, 2013	December 31, 2012
Liabilities, Redeemable Convertible Preferred Stock and Total Equity (Deficit)		
Current liabilities		
Accounts payable	$ 949	$ 632
Accrued compensation and benefits	3,693	3,766
Other accrued liabilities	2,299	2,208
Deferred revenue	7,398	9,963
Capital lease obligations, current	33	49
Current portion of long term debt	211	
Related party payables	5,134	99
Total current liabilities	19,717	16,717
Capital lease obligations, net of current portion	16	42
Long term debt, net of current portion	2,305	
Deferred revenue	59,994	48,673
Other long term liabilities	958	1,108
Total liabilities	82,990	66,540
Commitments and contingencies (Note 13)		
Series A redeemable convertible preferred stock, no par value; $1.21 stated value (liquidation preference of $0 and $1,406 as of September 30, 2013 and December 31, 2012, respectively); 0 and 705,400 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		1,358
Series B redeemable convertible preferred stock, no par value; $0.72 stated value (liquidation preference of $0 and $709 as of September 30, 2013 and December 31, 2012, respectively); 0 and 694,000 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		669
Series B-1 redeemable convertible preferred stock, no par value; $0.83 stated value (liquidation preference of $0 and $1,380 as of September 30, 2013 and December 31, 2012, respectively); 0 and 1,212,360 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		1,360
Series C redeemable convertible preferred stock, no par value; $1.10 stated value (liquidation preference of $0 and $7,162 as of September 30, 2013 and December 31, 2012, respectively); 0 and 4,546,360 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		7,134
Series C-1 redeemable convertible preferred stock, no par value; $1.57 stated value (liquidation preference of $0 and $34,222 as of September 30, 2013 and		34,201

December 31, 2012, respectively); 0 and 15,934,528 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		
Series C-2 redeemable convertible preferred stock, no par value; $1.88 stated value (liquidation preference of $0 and $44,614 as of September 30, 2013 and December 31, 2012, respectively); 0 and 18,617,020 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		44,512
Series C-3 redeemable convertible preferred stock, no par value; $1.88 stated value (liquidation preference of $0 and $29,819 as of September 30, 2013 and December 31, 2012, respectively); 0 and 13,297,872 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		29,770
Series D redeemable convertible preferred stock, no par value; $3.38 stated value (liquidation preference of $0 and $76,347 as of September 30, 2013 and December 31, 2012, respectively); 0 and 19,803,685 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		76,252
Series E redeemable convertible preferred stock, no par value; $5.25 stated value (liquidation preference of $0 and $214,086 as of September 30, 2013 and December 31, 2012, respectively); 0 and 38,095,239 shares authorized, issued and outstanding at September 30, 2013 and December 31, 2012, respectively		211,403
Total equity (deficit)		
Common stock, no par value, 200,000,000 shares and 160,000,000 shares authorized as of September 30, 2013 and December 31, 2012, respectively; 96,987,495 and 5,661,525 shares issued and outstanding as of September 30, 2013 and December 31, 2012, respectively		
Additional paid-in capital	741,315	
Accumulated deficit	(364,210)	(321,553)
Accumulated other comprehensive income	28	
Total Intrexon shareholders equity (deficit)	377,133	(321,553)
Noncontrolling interest	14,075	
Total equity (deficit)	391,208	(321,553)
Total liabilities, redeemable convertible preferred stock and total equity (deficit)	$ 474,198	$ 151,646

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

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Intrexon Corporation and Subsidiaries

Consolidated Statements of Operations

(Unaudited)

(Amounts in thousands, except share and per share data)	Three months ended September 30, 2013	Three months ended September 30, 2012	Nine months ended September 30, 2013	Nine months ended September 30, 2012
Revenues				
Collaboration revenues	$ 6,028	$ 2,904	$ 16,566	$ 7,163
Other revenues	105	21	324	106
Total revenues	6,133	2,925	16,890	7,269
Operating Expenses				
Research and development	10,763	14,364	35,867	50,984
General and administrative	7,407	5,046	21,320	19,139
Total operating expenses	18,170	19,410	57,187	70,123
Operating loss	(12,037)	(16,485)	(40,297)	(62,854)
Other Income (Expense)				
Unrealized appreciation (depreciation) in fair value of equity securities	27,339	(3,940)	5,704	12,031
Gain on previously held equity investment			7,415	
Interest expense	(6)	(17)	(31)	(42)
Investment income	38	1	58	3
Other expense	(343)	(49)	(349)	(75)
Total other income (expense)	27,028	(4,005)	12,797	11,917
Equity in net loss of affiliate			(390)	
Net income (loss)	$ 14,991	$ (20,490)	$ (27,890)	$ (50,937)
Net loss attributable to the noncontrolling interest	449		1,114	
Net income (loss) attributable to Intrexon	$ 15,440	$ (20,490)	$ (26,776)	$ (50,937)
Accretion of dividends on redeemable convertible preferred stock	(4,044)	(5,469)	(18,391)	(16,291)
Undistributed earnings allocated to preferred shareholders	(3,106)			
Net income (loss) attributable to common shareholders	$ 8,290	$ (25,959)	$ (45,167)	$ (67,228)

Net income (loss) attributable to common shareholders per share, basic	$ 0.15	$ (4.66)	$ (2.05)	$ (12.21)
Net income (loss) attributable to common shareholders per share, diluted	$ 0.15	$ (4.66)	$ (2.05)	$ (12.21)
Weighted average shares outstanding, basic	54,305,354	5,576,526	22,056,396	5,506,043
Weighted average shares outstanding, diluted	56,150,996	5,576,526	22,056,396	5,506,043

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

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Intrexon Corporation and Subsidiaries

Consolidated Statements of Comprehensive Income (Loss)

(Unaudited)

(Amounts in thousands)	Three months ended September 30, 2013	2012	Nine months ended September 30, 2013	2012
Net income (loss)	$ 14,991	$ (20,490)	$ (27,890)	$ (50,937)
Other comprehensive income (loss):				
Unrealized gain on investments	39		24	
Foreign currency translation adjustments	(46)		8	
Comprehensive income (loss)	14,984	(20,490)	(27,858)	(50,937)
Comprehensive loss attributable to the noncontrolling interest	470		1,110	
Comprehensive income (loss) attributable to Intrexon	$ 15,454	$ (20,490)	$ (26,748)	$ (50,937)

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

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Intrexon Corporation and Subsidiaries

Consolidated Statements of Shareholders and Total Equity (Deficit)

(Unaudited)

(Amounts in thousands, except share data)	Common stock Shares	Amount	Additional paid-in capital	Accumulated other comprehensive income	Accumulated deficit	Total Intrexon shareholders equity (deficit)	Noncontrolling Interest	Total equity (deficit)
Balances at December 31, 2012	5,661,525	$	$	$	$ (321,553)	$ (321,553)	$	$ (321,553)
Shares issued in IPO	11,499,998		168,801			168,801		168,801
Stock-based compensation expense			1,813			1,813	28	1,841
Exercises of stock options and warrant	111,450		51			51	4	55
Contribution of services by shareholder			1,163			1,163		1,163
Shares issued to nonemployee members of the Board of Directors	9,459		100			100		100
Accretion of dividends on redeemable convertible preferred shares			(2,510)		(15,881)	(18,391)		(18,391)
Conversion of redeemable convertible preferred shares, including accrued dividends, to common stock	79,705,130		571,898			571,898		571,898
Settlement of fractional shares from reverse stock split	(67)		(1)			(1)		(1)
Adjustments for noncontrolling interest							15,153	15,153
Net loss					(26,776)	(26,776)	(1,114)	(27,890)
Other comprehensive income				28		28	4	32
Balances at September 30, 2013	96,987,495	$	$ 741,315	$ 28	$ (364,210)	$ 377,133	$ 14,075	$ 391,208

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

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Intrexon Corporation and Subsidiaries

Consolidated Statements of Cash Flows

(Unaudited)

(Amounts in thousands)	Nine months ended September 30, 2013	2012
Cash flows from operating activities		
Net loss	$ (27,890)	$ (50,937)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,461	5,976
Loss on disposal of property and equipment	349	75
Unrealized appreciation on equity securities	(5,704)	(12,031)
Amortization of discount/premium of investments	251	
Equity in net loss of affiliate	390	
Gain on previously held equity investment	(7,415)	
Stock-based compensation expense	1,841	959
Contribution of services by shareholder	1,163	1,163
Shares issued to nonemployee members of the Board of Directors	100	85
Changes in operating assets and liabilities:		
Receivables:		
Trade	(49)	(36)
Related parties	(4,207)	40
Other	(572)	932
Prepaid expenses and other	(628)	(535)
Other assets	(58)	514
Accounts payable	182	(984)
Accrued compensation and benefits	(167)	1,915
Other accrued liabilities	(300)	(936)
Deferred revenue	(6,091)	4,867
Related party payables	35	(249)
Other long term liabilities	(150)	(13)
Net cash used in operating activities	(43,459)	(49,195)
Cash flows from investing activities		
Purchases of investments	(233,232)	(2)
Maturities of investments	15,498	
Purchases of equity securities	(3,900)	(10,000)
Acquisition of business, net of cash received	512	
Purchases of property and equipment	(1,262)	(7,145)
Proceeds from sale of property and equipment	480	16
Issuances of related party notes receivable	(300)	
Proceeds from related party notes receivable	500	34

Net cash used in investing activities	(221,704)	(17,097)

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

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Intrexon Corporation and Subsidiaries

Consolidated Statements of Cash Flows

(Unaudited)

(Amounts in thousands)	Nine months ended September 30, 2013	2012
Cash flows from financing activities		
Proceeds from issuance of Series E redeemable convertible preferred shares		50,560
Proceeds from issuance of Series F redeemable convertible preferred shares	150,000	
Proceeds from IPO, net of issuance costs	168,801	
Settlement of fractional shares	(5)	
Payments of capital lease obligations	(42)	(56)
Proceeds from long term debt	354	
Payments of long term debt	(36)	
Proceeds from stock option exercises	55	252
Payment of preferred stock issuance costs	(3,148)	(11)
Net cash provided by financing activities	315,979	50,745
Effect of exchange rate changes on cash and cash equivalents	3	
Net increase (decrease) in cash and cash equivalents	50,819	(15,547)
Cash and cash equivalents		
Beginning of period	10,403	19,628
End of period	$ 61,222	$ 4,081
Supplemental disclosure of cash flow information		
Cash paid during the period for interest	$ 50	$ 8
Significant noncash financing and investing activities		
Conversion of subscriptions payable into Series E redeemable convertible preferred shares	$	$ 7,440
Accretion of dividends on redeemable convertible preferred shares	18,391	16,291
Conversion of redeemable convertible preferred shares, including accrued dividends, to common stock	571,898	
Stock received as consideration for collaboration agreements	14,847	6,588
Accrued contribution to S & I Ophthalmic, LLC	5,000	

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

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Intrexon Corporation and Subsidiaries

Notes to Consolidated Financial Statements

(Unaudited)

(Amounts in thousands, except share and per share data)

1. Organization and Basis of Presentation

Intrexon Corporation (the Company or Intrexon) was formed in 1998. The Company is a Virginia corporation. During 2011, the Company formed or acquired three subsidiaries in connection with certain acquisitions. On March 15, 2013, the Company began consolidating AquaBounty Technologies, Inc. (AquaBounty) (Note 6). Intrexon uses synthetic biology for the fabrication of distinct products for collaboration with partners. The Company has operations in California, Florida, Maryland, North Carolina and Virginia. There are currently no treatments or products in production.

Effective July 26, 2013, the Company s board of directors and shareholders approved a reverse stock split of 1-for-1.75 of the Company s shares of common stock. Shareholders entitled to fractional shares as a result of the reverse stock split received a cash payment in lieu of receiving fractional shares. Shares of common stock underlying outstanding stock options and warrants were proportionately reduced and the respective exercise prices were proportionately increased in accordance with the terms of the agreements governing such securities. All share and per share data of the Company s common stock, including shares of common stock underlying stock options and warrants, have been retroactively adjusted in the accompanying consolidated financial statements to reflect the reverse stock split.

On August 13, 2013, the Company completed its initial public offering (IPO), whereby the Company sold 11,499,998 shares of common stock, inclusive of 1,499,999 shares of common stock sold by the Company pursuant to the full exercise of an overallotment option granted to the underwriters in connection with the IPO, at a price of $16.00 per share. The shares began trading on the New York Stock Exchange (NYSE) on August 8, 2013. The aggregate proceeds from the IPO were approximately $168,300, net of underwriting discounts and commissions of approximately $12,900 and offering expenses paid by the Company of approximately $2,800 (of which $2,300 were capitalized). Upon the closing of the IPO, all shares of the Company s redeemable convertible preferred stock, including accrued but unpaid dividends thereon, converted into 79,705,130 shares of common stock. Additionally, in connection with the closing of the IPO, the Company amended and restated its articles of incorporation to increase the number of authorized shares of common stock to 200,000,000 and decrease the number of authorized shares of undesignated preferred stock to 25,000,000.

These consolidated financial statements are presented in U.S. dollars and are prepared under accounting principles generally accepted in the United States of America (U.S. GAAP).

2. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying consolidated financial statements reflect the operations of the Company and its subsidiaries. All intercompany accounts and transactions have been eliminated. As of September 30, 2013, the Company uses the equity method of accounting to account for its investment in S & I Ophthalmic, LLC (S & I Ophthalmic), a joint venture between the Company and an indirect subsidiary (Sun Pharmaceutical Subsidiary) of Sun Pharmaceutical

Industries Ltd. (Sun Pharmaceutical), an international specialty pharmaceutical company focused on chronic diseases (Note 7).

Unaudited Financial Information

The accompanying interim consolidated financial statements are unaudited and have been prepared in accordance with U.S. GAAP. Certain information and footnote disclosures normally included in the Company s annual financial statements have been condensed or omitted. These interim consolidated financial statements, in the opinion of management, reflect all normal recurring adjustments necessary for fair statement of the Company s financial position as of September 30, 2013 and results of operations and cash flows for the interim periods ended September 30, 2013 and 2012. These interim financial results are not necessarily indicative of the results to be expected for the year ending December 31, 2013, or for any other future annual or interim period. The accompanying interim unaudited consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes thereto for the year ended December 31, 2012, included in the Prospectus that forms a part of the Company s Registration Statement on Form S-1 (File No. 333-189853), which was filed with the Securities and Exchange Commission pursuant to Rule 424 on August 8, 2013.

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Revenue Recognition

The Company generates revenue through contractual agreements with collaborative partners (known as exclusive channel collaborations, ECC or ECCs) whereby the partners obtain exclusive access to the Company s proprietary technology for use in the research, development and commercialization of products and/or treatments in a contractually specified field of use. Generally, the terms of these collaborative agreements provide that the Company receive some or all of the following: (i) upfront payments upon consummation of the agreement, (ii) reimbursements for costs incurred by the Company for research and development and/or manufacturing efforts related to specific application provided for in the agreement, (iii) milestone payments upon the achievement of specified development, regulatory and commercial activities, and (iv) royalties on sales of products arising from the collaboration.

The Company s collaboration agreements typically contain multiple elements, or deliverables, including technology licenses, research and development services, and in certain cases manufacturing services. Effective January 1, 2011, the Company adopted the provisions of Accounting Standards Update (ASU) No. 2009-13, *Revenue Recognition (Topic 605): Multiple Deliverable Revenue Arrangements* (ASU 2009-13). In accordance with the provisions of ASU 2009-13, the Company identifies the deliverables within the agreements and evaluates which deliverables represent separate units of accounting. Analyzing the agreements to identify deliverables requires the use of judgment. A deliverable is considered a separate unit of accounting when the deliverable has value to the collaborative partner on a standalone basis based on the consideration of the relevant facts and circumstances for each agreement.

Consideration received is allocated at the inception of the agreement to all identified units of accounting based on their relative selling price. When available, the relative selling price for each deliverable is determined using vendor specific objective evidence (VSOE) of selling price or third-party evidence of selling price, if VSOE does not exist. If neither VSOE nor third-party evidence of selling price exists, the Company uses its best estimate of the selling price (BESP) for the deliverable. The amount of allocable consideration is limited to amounts that are fixed or determinable. The consideration received is allocated among the separate units of accounting, and the applicable revenue recognition criteria are applied to each of the separate units. The Company recognizes the revenue allocated to each unit of accounting as the Company delivers the related goods or services. If the Company determines that certain deliverables should be treated as a single unit of accounting, then the revenue is recognized using either a proportional performance or straight-line method, depending on whether the Company can reasonably estimate the level of effort required to complete its performance obligations under an arrangement and whether such performance obligations are provided on a best-efforts basis. As the Company cannot reasonably estimate its performance obligations related to its collaborators, the Company recognizes revenue on a straight-line basis over the period it expects to complete its performance obligations.

The terms of the Company s agreements may provide for milestone payments upon achievement of certain defined events. The Company applies ASU No. 2010-17, *Revenue Recognition Milestone Method* (ASU 2010-17 or Milestone Method). Under the Milestone Method, the Company recognizes consideration that is contingent upon the achievement of a milestone in its entirety as revenue in the period in which the milestone is achieved only if the milestone is substantive in its entirety. A milestone is considered substantive when it meets all of the following criteria:

(1) The consideration is commensurate with either the entity s performance to achieve the milestone or the enhancement of the value of the delivered item or items as a result of a specific outcome resulting from the entity s performance to achieve the milestone;

(2) The consideration relates solely to past performance; and

(3) The consideration is reasonable relative to all of the deliverables and payment terms with the arrangement. In the event that a milestone is not considered substantive, the Company recognizes the milestone consideration as revenue using the same method applied to upfront payments.

Research and development services are a deliverable satisfied by the Company in accordance with the terms of the collaboration agreements and the Company considers these services to be inseparable from the license to the core technology; thus, reimbursements of services performed are recognized as revenue. Further, because reimbursement (i) is contingent upon performance of the services by the Company, (ii) does not include a profit component, and (iii) does not relate to any future deliverable, the revenue is recognized during the period in which the related services are performed and collection of such amounts is reasonable assured. Payments received from manufacturing services will be recognized when the earnings process related to the manufactured materials has been completed. Royalties to be received under the agreements will be recognized as earned.

The Company also generates revenue from other licenses of certain technologies and rental and other income from sublease agreements. License revenue is recognized on a straight-line basis over the term of the license agreement. Deferred revenue is recorded on the consolidated balance sheet when cash is received prior to the period in which the revenue is earned. Sublease and laboratory services revenues are recognized in the period in which they are earned.

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Research and Development

The Company considers that regulatory and other uncertainties inherent in the research and development of new products preclude it from capitalizing such costs. Research and development expenses include salaries and related costs of research and development personnel, and the costs of consultants, facilities, materials and supplies associated with research and development projects as well as various laboratory studies. Indirect research and development costs include depreciation, amortization and other indirect overhead expenses.

The Company has research and development arrangements with third parties that include upfront and milestone payments. At September 30, 2013 and December 31, 2012, the Company had research and development commitments with third parties totaling $2,786 and $3,164, respectively, of which $1,267 and $1,431, respectively, had not yet been incurred. The commitments are generally cancellable by the Company at any time upon written notice.

Cash and Cash Equivalents

All highly liquid investments with an original maturity of three months or less at the date of purchase are considered to be cash equivalents. Cash balances at a limited number of banks may periodically exceed insurable amounts. The Company believes that it mitigates its risk by investing in or through major financial institutions. Recoverability of investments is dependent upon the performance of the issuer. At September 30, 2013 and December 31, 2012, the Company had cash equivalent investments in highly liquid money market accounts at major financial institutions of $56,693 and $9,384, respectively.

Short-term and Long-term Investments

Short-term and long-term investments include U.S. government debt securities, commercial paper and certificates of deposit. The Company determines the appropriate classification as short-term or long-term at the time of purchase based on original maturities and management s reasonable expectation of sales and redemption. The Company reevaluates such classification at each balance sheet date. In June 2013, the Company s board of directors approved an investment policy to invest cash in excess of immediate requirements in securities to preserve principal and maintain sufficient liquidity. Accordingly, the Company purchases U.S. government debt securities, commercial paper and certificates of deposit. The Company s written investment policy requires investments to be explicitly rated by two of the three following rating services: Standard & Poor s, Moody s and/or Fitch and to have a minimum rating of A1, P1 and/or F-1, respectively, from those agencies. In addition, the investment policy limits the amount of credit exposure to any one issuer.

Equity Securities

The Company holds equity securities received and/or purchased from certain collaborative partners. Other than investments accounted for using the equity method and discussed below, the Company elected the fair value option to account for its equity securities held in these partners, some of which are equity method investments. These equity securities are recorded at fair value at each reporting date. Unrealized gains and losses resulting from fair value adjustments are reported in the consolidated statement of operations. These equity securities are classified as noncurrent in the consolidated balance sheet as the Company does not currently intend to sell these equity securities within one year. The Company has not sold any of these equity securities to date.

The Company records the fair value of securities received on the date the collaboration is consummated or the milestone is achieved using the closing, quoted price of the collaborator s security on that date, assuming the transfer of consideration is considered perfunctory. If the transfer of the consideration is not considered perfunctory, the

Company considers the specific facts and circumstances to determine the appropriate date on which to evaluate fair value. The Company also evaluates whether any discounts for trading restrictions or other basis for lack of marketability should be applied to the fair value of the securities at inception of the collaboration. In the event the Company concludes that a discount should be applied, the fair value of the securities is adjusted at inception of the collaboration and re-evaluated at each reporting period thereafter.

Fair Value of Financial Instruments

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset and liability. As a basis for considering such assumptions, the Company uses a three-tier fair value hierarchy that prioritizes the inputs used in its fair value measurements. The hierarchy gives 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 as follows:

Level 1: Quoted prices in active markets for identical assets and liabilities;

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Level 2: Other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly; and

Level 3: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available.

As discussed in Equity Securities above, the Company elected the fair value option for the equity securities held in certain collaborative partners.

Concentrations of Risk

Due to the Company s mix of fixed and variable rate securities holdings, the Company s investment portfolio is susceptible to changes in interest rates. As of September 30, 2013, the Company s investments had gross unrealized losses of $9. From time to time, the Company may liquidate some or all of its investments to fund operational needs or other activities, such as capital expenditures or business acquisitions. Depending on which investments the Company liquidates to fund these activities, the Company could recognize a portion, or all, of the gross unrealized losses.

Equity Method Investments

Through March 15, 2013, the Company accounted for its investment in AquaBounty, a biotechnology company focused on improving productivity in commercial aquaculture, using the equity method of accounting as the Company had the ability to exercise significant influence over, but not control, the operating activities of AquaBounty. Under the equity method of accounting, the Company included its pro-rata share of AquaBounty s operating results, adjusted for accretion of basis difference, on a separate line in the consolidated statement of operations called Equity in net loss of affiliate. On the consolidated balance sheet as of December 31, 2012, the Company presented its investment in AquaBounty as Investment in affiliate. The excess cost over the Company s pro-rata share of AquaBounty s net assets was identifiable intangible assets and equity-method goodwill. This equity-method goodwill was not amortized; however, the investment in AquaBounty was analyzed for impairment on a periodic basis or if an event occurred or circumstances changed that indicate the carrying amount may be impaired. On March 15, 2013, the Company acquired additional ownership interests in AquaBounty resulting in the Company gaining control over and thus consolidating AquaBounty. See Note 6 for additional discussion of this transaction.

The Company accounts for its investment in S & I Ophthalmic using the equity method of accounting as the Company has the ability to exercise significant influence over, but not control, the operating activities of S & I Ophthalmic. Under the equity method of accounting, the Company includes its pro-rata share of S & I Ophthalmic s operating results on a separate line in the consolidated statement of operations called Equity in net loss of affiliate . On the consolidated balance sheet as of September 30, 2013, the Company presented its investment in S & I Ophthalmic as Investment in affiliate. See Note 7 for additional discussion of S & I Ophthalmic.

The Company determined that it has significant influence over two and one of its collaborators as of September 30, 2013 and December 31, 2012, respectively based on its ownership interest, representation on the board of directors of the collaborator and other qualitative factors. As of December 31, 2012, the Company determined that one of these collaborators, Ziopharm Oncology, Inc. (Ziopharm), met the criteria of SEC Regulation S-X Article 3-09 for inclusion of separate financial statements of an equity method investment. The Company accounts for this investment using the fair value option. The fair value of the Company s equity securities of Ziopharm is $53,321 and $56,298 as of September 30, 2013 and December 31, 2012, respectively, and is included as equity securities in the respective consolidated balance sheets. The Company s ownership percentage of Ziopharm is 16.2% and 16.3% at September 30, 2013 and December 31, 2012, respectively. Unrealized appreciation (depreciation) in the fair value of the Company s equity securities held in Ziopharm is $24,766 and $(4,948) for the three months ended September 30, 2013 and 2012,

respectively, and $(2,977) and $8,773 for the nine months ended September 30, 2013 and 2012, respectively. Summarized unaudited financial information for Ziopharm for the three and nine months ended September 30, 2013 and 2012 are as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
Revenues	$ 200	$ 200	$ 600	$ 600
Operating expenses	9,315	21,927	51,592	63,926
Loss from operations	(9,115)	(21,727)	(50,992)	(63,326)
Other	(7,598)	3,903	2,789	(2,581)
Net loss	$ (16,713)	$ (17,824)	$ (48,203)	$ (65,907)

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Variable Interest Entities

The Company identifies entities that either (1) do not have sufficient equity investment at risk to permit the entity to finance its activities without additional subordinated financial support or (2) in which the equity investors lack an essential characteristic of a controlling financial interest as variable interest entities (VIE or VIEs). The Company performs an initial and on-going evaluation of the entities with which the Company has variable interests to determine if any of these entities are a VIE. If an entity is identified as a VIE, the Company performs an assessment to determine whether the Company has both (1) the power to direct activities that most significantly impact the VIE s economic performance and (2) have the obligation to absorb losses from or the right to receive benefits of the VIE that could potentially be significant to the VIE. If both of these criteria are satisfied, the Company is identified as the primary beneficiary of the VIE. As of December 31, 2012, the Company s investment in affiliate, AquaBounty, is identified as a VIE. The Company is not the primary beneficiary for this entity as the Company does not have the power to direct the activities that most significantly impact the economic performance of the VIE. As of December 31, 2012, the total carrying value of the Company s investment in the VIE was $5,726, which is the investment in AquaBounty. On March 15, 2013, the Company began consolidating AquaBounty in the Company s results of operations and financial position as a result of the Company s ownership in AquaBounty exceeding 50% (Note 6). The Company s maximum exposure to loss related to this VIE as of December 31, 2012 was limited to the carrying value of the investment in affiliate. As of September 30, 2013, two of the Company s collaborators, AmpliPhi Biosciences Corporation (AmpliPhi) and Genopaver, LLC (Genopaver), were identified as VIEs. The Company is not the primary beneficiary for either of these entities as the Company does not have the power to direct the activities that most significantly impact the economic performance of the VIEs. As of September 30, 2013, the total carrying value of the Company s investment in the VIEs was $11,540, which is equal to the value of the equity securities holdings in those VIEs.

Property, Plant and Equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and amortization. Major additions or betterments are charged to the property accounts while repairs and maintenance are generally expensed as incurred. Depreciation and amortization is calculated on the straight-line method over the estimated useful lives of the assets. The estimated useful lives of these assets are as follows:

	Years
Building	13
Furniture and fixtures	7
Lab equipment	2 7
Computer hardware	5 7
Software	3 5

Leasehold improvements are amortized over the shorter of the useful life of the asset or the applicable lease term, generally one to four years.

Goodwill

Goodwill is an asset that represents the future economic benefits arising from other assets acquired in a business combination that are not individually identified and separately recognized (Note 6). Goodwill is reviewed for impairment at least annually. The Company has the option to perform a qualitative assessment to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount prior to performing the two-step goodwill impairment test. If this is the case, the two-step goodwill impairment test is required. If it is

more-likely-than-not that the fair value of a reporting unit is greater than the carrying amount, the two-step goodwill impairment test is not required.

If the two-step goodwill impairment test is required, first, the fair value of the reporting unit is compared with its carrying amount (including goodwill). If the fair value of the reporting unit is less than its carrying amount, an indication of goodwill impairment exists for the reporting unit and the entity must perform step two of the impairment test. Under step two, an impairment loss is recognized for any excess of the carrying amount of the reporting unit s goodwill over the implied fair value of that goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit in a manner similar to a purchase price allocation and the residual fair value after this allocation is the implied fair value of the reporting unit goodwill. Fair value of the reporting unit is determined using a discounted cash flow analysis. If the fair value of the reporting unit exceeds its carrying amount, step two does not need to be performed.

The Company intends to perform its annual impairment review of goodwill in the fourth quarter, or sooner if a triggering event occurs prior to the annual impairment review.

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Intangible Assets

Intangible assets subject to amortization consist of patents and related technologies acquired in mergers and acquisitions and a favorable lease asset acquired upon the assumption of a lease agreement. These intangible assets subject to amortization were recorded at fair value at the date of acquisition and are stated net of accumulated amortization. Indefinite-lived intangible assets consist of in-process research and development acquired as a result of a step acquisition (Note 6) and is recorded at fair value at the date of the step acquisition.

The Company applies the provisions of ASC Topic 350, *Intangibles, Goodwill and Other*, which requires the amortization of long-lived intangible assets to reflect the pattern in which the economic benefits of the intangible asset are expected to be realized. The intangible assets are amortized over their remaining estimated useful lives, ranging from seven to fourteen years for the patents and related technologies, and through the end of the original lease term, February 1, 2013, for the favorable lease asset.

Impairment of Long-Lived Assets

Long-lived assets to be held and used, including property, plant and equipment and intangible assets subject to amortization, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Conditions that would necessitate an impairment assessment include a significant decline in the observable market value of an asset, a significant change in the extent or manner in which an asset is used, or a significant adverse change that would indicate that the carrying amount of an asset or group of assets is not recoverable.

Indefinite-lived intangible assets, including in-process research and development, are tested for impairment annually, or more frequently if events or circumstances between annual tests indicate that the asset may be impaired. Impairment losses on indefinite-lived intangible assets are recognized based solely on a comparison of their fair value to carrying value, without consideration of any recoverability test. The Company monitors the progression of its in-process research and development, as the likelihood of success is contingent upon regulatory approval.

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 both differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases as well as 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 of the change. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company identifies any uncertain income tax positions and recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that is greater than 50% likely of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest, if any, related to unrecognized tax benefits as a component of interest expense. Penalties, if any, are recorded in general and administrative expenses.

Net Income (Loss) per Share

For three months ended September 30, 2012 and the nine months ended September 30, 2013 and 2012, basic net loss per share is calculated by dividing net loss attributable to common shareholders by the weighted average shares outstanding during the period, without consideration of common stock equivalents. Diluted net loss per share is calculated by adjusting weighted average shares outstanding for the dilutive effect of common stock equivalents outstanding for the period, determined using the treasury-stock method. For purposes of the diluted net loss per share calculation, preferred stock prior to the conversion to common stock, stock options and warrants are considered to be common stock equivalents but are excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive and, therefore, basic and diluted net loss per share were the same for the three months ended September 30, 2012 and the nine months ended September 30, 2013 and 2012.

For the three months ended September 30, 2013, basic and diluted net income per share are presented in conformity with the two-class method, which is required because the Company had issued securities other than common stock that participate in dividends with common stock (participating securities). Shares of the Company s preferred stock were considered participating securities for the periods up to immediately prior to the closing of the Company s IPO on August 13, 2013 when all preferred stock was converted to common stock. The Company s preferred stock did not participate in the allocation of losses of the Company.

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The two-class method requires that the Company calculate the net income per share attributable to common shareholders, which will differ from the Company s net income. Net income attributable to common shareholders is generally equal to net income less the accretion of dividends on preferred stock with any remaining earnings, after deducting dividends, allocated between the preferred shareholders and common shareholders as of the end of the period. The basic net income per share attributable to common shareholders is calculated by dividing the net income attributable to common shareholders by the weighted average number of shares of common stock outstanding for the period. Diluted net income per share attributable to common shareholders is computed by giving effect to all potential dilutive common stock equivalents outstanding during the period. For purposes of this calculation, preferred stock, stock options and warrants are considered to be common stock equivalents.

Segment Information

The Company has determined that it operates in one segment. The Company uses synthetic biology for the creation of distinct products for collaboration with partners. All of the Company s revenues are derived in the United States of America. Substantially all of the Company s assets are located in the United States of America.

Recently Issued Accounting Pronouncements

In February 2013, the FASB issued ASU No. 2013-02, *Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income* (ASU 2013-02). ASU 2013-02 requires that companies present either in a single note or parenthetically on the face of the financial statements, the effect of significant amounts reclassified from each component of accumulated other comprehensive income based on its source and the income statement line items affected by the reclassification. If a component is not required to be reclassified to net income in its entirety, companies would instead cross reference to the related footnote for additional information. ASU 2013-02 is effective for interim and annual reporting periods beginning after December 15, 2012. The Company has implemented the provisions of ASU 2013-02 as of January 1, 2013. The adoption of this amendment did not have a material impact on the Company s consolidated financial statements.

In December 2011, the FASB issued ASU No. 2011-11, *Balance Sheet (Topic 210): Disclosures about Offsetting Assets and Liabilities* (ASU 2011-11). ASU 2011-11 requires an entity to disclose information about offsetting and related arrangements to enable users of financial statements to understand the effect of those arrangements on its financial position, and to allow investors to better compare financial statements prepared under U.S. GAAP with financial statements prepared under IFRS. The new standards are effective for annual periods beginning January 1, 2013 and interim periods within those annual periods. Retrospective application is required. The Company has implemented the provisions of ASU 2011-11 as of January 1, 2013. The adoption of this amendment did not have a material impact on the Company s consolidated financial statements.

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, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

3. Collaboration Revenue

Deferred revenue primarily consists of consideration received for upfront and milestone payments in connection with the Company s collaborators and prepayments for research and development services performed for collaborators.

Deferred revenue consists of the following:

	September 30, 2013	December 31, 2012
Upfront and milestone payments	$ 65,846	$ 51,359
Prepaid research and development services	1,502	7,229
Other	44	48
Total	$ 67,392	$ 58,636
Current portion of deferred revenue	7,398	9,963
Long-term portion of deferred revenue	59,994	48,673
Total	$ 67,392	$ 58,636

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Ziopharm Oncology, Inc. ECC

Effective January 6, 2011, the Company entered into a worldwide ECC with Ziopharm. Under the ECC, Ziopharm received a license to the Company s technology platform within the field of oncology as defined more specifically in the agreement. Upon execution of the ECC, the Company received 3,636,926 shares of Ziopharm s common stock valued at $17,457 as upfront consideration. The Company is entitled to additional shares of common stock representing the lesser of (i) the original shares received or (ii) the number of shares representing 7.495% of Ziopharm s outstanding shares at the date of the dosing of the first patient in a Phase II clinical trial of a product candidate created, produced or developed by Ziopharm using the Company s technology (Ziopharm Milestone). The Company receives reimbursement payments for research and development services provided and manufacturing services for Company materials provided to Ziopharm during the ECC. Subject to certain expense allocations, Ziopharm will pay the Company 50% of the quarterly net profits derived from the sale of products developed from the ECC. Ziopharm is responsible for conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization or manufacturing of product candidates. The term of the ECC commenced on January 6, 2011 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Ziopharm upon 90 days written notice to the Company provided that no voluntary termination by Ziopharm can be made during the first two years of the ECC. See Note 14 for additional transactions with Ziopharm.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, two clinical-stage product candidates, services to transition the two clinical-stage product candidates, participation on the joint steering committee (JSC), the research and development services, and any manufacturing services to be provided. The Company grouped the deliverables into three units of accounting based on the nature of the deliverables and the separation criteria: (i) the two clinical-stage product candidates and related services to transition these product candidates to Ziopharm (Ziopharm Unit of Accounting 1), which had standalone value to Ziopharm at inception of the ECC; (ii) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Ziopharm Unit of Accounting 2), as these deliverables could not be separated; and (iii) manufacturing services to be provided for any Company materials in an approved product from the ECC (Ziopharm Unit of Accounting 3), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Ziopharm Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on the two clinical programs that were transferred to Ziopharm to approximate the cost to recreate the deliverables included in this unit of accounting. In establishing BESP for Ziopharm Unit of Accounting 2, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Ziopharm to approximate the cost to recreate the deliverables included in this unit of accounting. The upfront consideration was allocated to Ziopharm Unit of Accounting 1 and Ziopharm Unit of Accounting 2 based on the relative selling price method. Ziopharm Unit of Accounting 3 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company. As a result of the relative selling price method, $1,115 of the upfront consideration was allocated to Ziopharm Unit of Accounting 1, all of which was recognized as collaboration revenue for the year ended December 31, 2011 since the Company had completed its obligations to deliver this unit of accounting. The remaining $16,342 of upfront consideration was allocated to Ziopharm Unit of Accounting 2 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $314 of this allocated amount as collaboration revenue in both of the three months ended September 30, 2013 and 2012, respectively, and $942 and $943 in the nine months ended September 30, 2013 and 2012, respectively. The remaining balance of $12,886 of upfront consideration allocated to

Ziopharm Unit of Accounting 2 is recorded as deferred revenue at September 30, 2013.

The Company recognizes the reimbursement payments received for research and development services provided pursuant to the agreement in the period when the services are performed and collection is reasonably assured. On March 21, 2012, the Company received $10,000 from Ziopharm as a prepayment of research and development services to be provided in conjunction with the ECC. The Company recorded this amount as deferred revenue and recognizes collaboration revenue as services are performed. The Company recognized $2,122 and $2,137 of collaboration revenue for research and development services performed in the three months ended September 30, 2013 and 2012, respectively, of which $1,141 and $1,893 was applied against the $10,000 prepayment received, respectively. The Company recognized $5,843 and $5,095 of collaboration revenue for research and development services performed in the nine months ended September 30, 2013 and 2012, respectively, of which $4,862 and $3,900 was applied against the $10,000 prepayment received, respectively. A balance of $981 is included as related party receivables on the September 30, 2013 consolidated balance sheet. As of September 30, 2013 the entire balance of the prepayment had been used.

At inception of the agreement, the Company determined that the Ziopharm Milestone is not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. On October 24, 2012, the Ziopharm Milestone was achieved and the Company received 3,636,926 shares of Ziopharm s common

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stock valued at $18,330 as milestone consideration, which is the sole milestone under this ECC. Since the Ziopharm Milestone was not substantive, the Company allocated the milestone consideration to Ziopharm Unit of Accounting 1 and Ziopharm Unit of Accounting 2 using the same relative selling price allocation as the upfront consideration. As a result, $1,171 of the milestone consideration was allocated to Ziopharm Unit of Accounting 1 and immediately recognized as collaboration revenue for the year ended December 31, 2012 and the remaining $17,159 was allocated to Ziopharm Unit of Accounting 2. The Company recognized $2,420 of the milestone consideration allocated to Ziopharm Unit of Accounting 2 as collaboration revenue at the date the Ziopharm Milestone was achieved, which represented the amount that would have been recognized from inception of the ECC through the milestone achievement date had the payment been received upfront. The remaining $14,739 was recorded as deferred revenue and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $330 and $990 of this deferred milestone consideration for the three and nine months ended September 30, 2013, respectively, and the remaining $13,529 is included as deferred revenue on the September 30, 2013 consolidated balance sheet.

Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

Synthetic Biologics, Inc. ECCs

Effective November 18, 2011, the Company entered into a worldwide ECC with Synthetic Biologics, Inc. (Synthetic Biologics), a publicly traded company focused on the development of innovative disease-modifying medicines for serious illnesses. Under the ECC, at the transaction effective date, Synthetic Biologics received a license to the Company s technology platform within a designated field (Field One). Upon execution of the ECC, the Company received 3,123,558 shares of Synthetic Biologics common stock valued at $1,687 as upfront consideration. The Company is entitled to additional shares of common stock representing the lesser of (i) the original shares received or (ii) the number of shares representing 9.995% of Synthetic Biologics outstanding shares at the date of the dosing of the first patient in a Phase II clinical trial of a product candidate created, produced or developed by Synthetic Biologics using the Company s technology (Synthetic Biologics Field One Milestone). The Company will receive reimbursement payments for research and development services provided pursuant to the agreement and manufacturing services for Company materials provided to Synthetic Biologics during the ECC. Subject to certain expense allocations, Synthetic Biologics will pay the Company 50% of the quarterly net profits derived from the sale of products developed from the ECC. Synthetic Biologics is responsible for conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization or manufacturing of the product candidates. The term of the ECC commenced on November 18, 2011 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Synthetic Biologics upon 90 days written notice to the Company provided that no voluntary termination by Synthetic Biologics can be made during the first 18 months of the ECC. See Note 14 for a description of additional arrangements with Synthetic Biologics.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Synthetic Biologics Field One Unit of Accounting 1), as these deliverables could not be separated, and (ii) manufacturing services to be provided for any Company materials in an approved product from the ECC (Synthetic Biologics Field One Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not

available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Synthetic Biologics Field One Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Synthetic Biologics to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to Synthetic Biologics Field One Unit of Accounting 1. Synthetic Biologics Field One Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company. The $1,687 of upfront consideration was allocated to Synthetic Biologics Field One Unit of Accounting 1 and was recognized over the expected life of the Company s technology platform using a straight-line approach. On April 16, 2013, the Company terminated its ECC with Synthetic Biologics in Field One. As a result of this termination, all licenses granted by the Company under the ECC for use in Field One reverted back to the Company and the Company recognized the balance of deferred revenue associated with the upfront consideration as collaboration revenue in April 2013. The Company recognized $33 of collaboration revenue for the three months ended September 30, 2012 and $1,535 and $97 for the nine months ended September 30, 2013, and 2012, respectively.

On August 6, 2012, the Company entered into its second worldwide ECC with Synthetic Biologics. Under this ECC, at the transaction effective date, Synthetic Biologics received a license to the Company s technology platform within a second designated field (Field Two). Upon Synthetic Biologics shareholders approval on October 5, 2012, the Company received a technology access fee of

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3,552,210 shares of Synthetic Biologics common stock valued at $7,815 as upfront consideration. Upon the filing by Synthetic Biologics of an investigational new drug application with the U.S. Food and Drug Administration, or FDA, the Company will receive cash or common stock at the option of Synthetic Biologics valued at $2,000. Upon the first to occur of either the first commercial sale of a product developed under the ECC or the granting of regulatory approval of a product developed under the ECC, the Company will receive cash or common stock at the option of Synthetic Biologics valued at $3,000. The ECC initially targets three infectious diseases and Synthetic Biologics may elect to target up to five more infectious diseases by paying the Company a field expansion fee of $2,000 in either cash or common stock for each additional infectious disease selected. The regulatory milestones and field expansion fee(s) are referred to as the Synthetic Biologics Field Two Milestones. The Company receives reimbursement payments for research and development services provided pursuant to the agreement and manufacturing services for preclinical Company materials provided to Synthetic Biologics during the ECC. The Company has the option to propose, and Synthetic Biologics can select, the Company to be the bulk manufacturer of products developed from the ECC. On a quarterly basis, Synthetic Biologics will pay the Company royalties with percentages ranging from upper-single digits to lower double digits of net sales of products developed from the ECC. Synthetic Biologics is responsible for conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization and manufacturing of the product candidates. The term of the ECC commenced on August 6, 2012 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Synthetic Biologics upon 90 days written notice to the Company provided that no voluntary termination by Synthetic Biologics can be made during the first 18 months of the ECC.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and the potential manufacturing services of a product(s) to be provided if the Company is elected as the manufacturer. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Synthetic Biologics Field Two Unit of Accounting 1), as these deliverables could not be separated, and (ii) the potential manufacturing services to be provided for a product(s) from the ECC (Synthetic Biologics Field Two Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Synthetic Biologics Field Two Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Synthetic Biologics to approximate the cost to recreate the deliverables included in this unit of accounting. All up-front consideration was allocated to Synthetic Biologics Field Two Unit of Accounting 1. Synthetic Biologics Field Two Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether any approved products would be developed and whether the Company is elected by Synthetic Biologics to be the manufacturer of any approved products. The $7,815 of upfront consideration was allocated to Synthetic Biologics Field Two Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $163 and $489 of collaboration revenue for the three and nine months ended September 30, 2013, respectively. The remaining $7,163 is recorded as deferred revenue at September 30, 2013.

At inception of the agreement, the Company determined that the Synthetic Biologics Field Two Milestones are not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. Royalties related to product net sales will be recognized when earned as the Company has determined that these sales based milestones are not considered a milestone payment under ASU 2010-17.

The Company recognizes the reimbursement payments received for research services in the period when the services are performed and collection is reasonably assured. The Company recognized $176 and $71 of collaboration revenue for research and development services performed in the three months ended September 30, 2013 and 2012, respectively, for both ECCs and $865 and $194 in the nine months ended September 30, 2013 and 2012, respectively. On December 17, 2012, the Company received $2,500 from Synthetic Biologics as a prepayment of research and development services to be provided in conjunction with either of the two ECCs. The Company recorded this amount as deferred revenue and recognizes collaboration revenue as services are performed. All collaboration revenue recognized in the three and nine months ended September 30, 2013 was applied against the $2,500 prepayment received. The balance of $1,502 is included in deferred revenue on the September 30, 2013 consolidated balance sheet. Any remaining balance of this prepayment is refundable to Synthetic Biologics in the event both ECCs are terminated.

Elanco ECC

Effective November 28, 2011, the Company entered into a worldwide ECC with Elanco, the animal health division of Eli Lilly and Company (Elanco). The Company received cash upfront and is entitled to additional amounts up to an aggregate of $2,250 per product candidate based on the occurrence of separate performance, regulatory and sales-based milestones. The Company receives reimbursement payments for research services provided to Elanco during the ECC up to a certain maximum per calendar year. Elanco

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will pay the Company royalties with percentages ranging from mid-to-upper single digits to lower double digits based on net sales of products developed from the ECC. The term of the ECC commenced on November 28, 2011 and continues until terminated pursuant to the agreement. The ECC may be terminated by either party in the event of certain material breaches and may be voluntarily terminated in its entirety or on target-by-target basis upon 90 days written notice to the Company or 180 days written notice if the Company is performing research services on a product target.

The Company identified the deliverables at the inception of the ECC which are the license to the Company s technology platform, participation on the ECC s JSC, the research services and potential manufacturing services. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research services to be provided (Elanco Unit of Accounting 1), as these deliverables could not be separated, and (ii) if approved by Elanco, manufacturing services to be provided for any Company materials in an approved product from the ECC (Elanco Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Elanco Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Elanco to approximate the cost to recreate the deliverables included in this unit of accounting. All the upfront consideration was allocated to Elanco Unit of Accounting 1. Elanco Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and whether the Company would be approved by Elanco to provide such manufacturing. The upfront consideration was allocated to Elanco Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach.

The Company recognizes the reimbursement payments received for research services provided pursuant to the agreement in the period when the services are performed and collection is reasonably assured. The Company recognized $90 and $51 of collaboration revenue for research and development services performed in the three months ended September 30, 2013 and 2012, respectively, and recognized $289 and $485 in the nine months ended September 30, 2013 and 2012, respectively, of which $91 is included as trade receivables on the September 30, 2013 consolidated balance sheet.

At inception of the agreement, the Company determined that the performance milestone is substantive and can be recognized when earned in accordance with ASU 2010-17 as the milestone met all the criteria required by ASU 2010-17 to be considered substantive. The regulatory milestone is not substantive as the milestone did not meet all of the criteria required by ASU 2010-17 to be considered substantive. The sales-based milestone and royalties will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

Oragenics, Inc. ECCs

Effective June 5, 2012, the Company entered into a worldwide ECC with Oragenics, Inc. (Oragenics), a publicly traded company focused on becoming the world leader in novel antibiotics against infectious disease and probiotics for oral health for humans and pets. Under the ECC, at the transaction effective date, Oragenics received a license to the Company s technology platform within the field of lantibiotics for the treatment of infectious diseases in humans and companion animals as defined more specifically in the agreement. Upon execution of the ECC, the Company received a technology access fee of 4,392,425 shares of Oragenics common stock valued at $6,588 as upfront consideration. The Company is entitled to receive additional shares of common stock, or at Oragenics option, receive

a cash payment based upon the fair market value of the shares, upon the separate achievement of certain regulatory milestones of the first product candidate developed from the ECC (Oragenics ECC 1 Milestones). The Oragenics Milestones include: (i) 1% of Oragenics outstanding shares as defined in the ECC agreement at the date of the filing of the first Investigative New Drug Application with the U.S. Food and Drug Administration (U.S. FDA) for a product candidate created, produced or developed using the Company s technology (Oragenics ECC 1 Product); (ii) 1.5% of Oragenics outstanding shares as defined in the ECC agreement at the date of the dosing of the first patient in the first Phase II clinical trial of an Oragenics ECC 1 Product; (iii) 2% of Oragenics outstanding shares as defined in the ECC agreement at the date of the dosing of the first patient in the first Phase III clinical trial of an Oragenics ECC 1 Product; (iv) 2.5% of Oragenics outstanding shares as defined in the ECC agreement at the date of the first New Drug Application or Biologics License Application with the U.S. FDA for an Oragenics ECC 2 Product, or alternatively the first equivalent regulatory filing with a foreign agency; and (v) 3% of Oragenics outstanding shares as defined in the ECC agreement at the date of the granting of the first regulatory approval of an Oragenics ECC 1 Product. The Company receives reimbursement payments for research and development services provided pursuant to the agreement during the ECC and manufacturing services for Company materials provided to Oragenics during the ECC. Oragenics will pay the Company 25% of the quarterly profits derived from the sale of products developed from the ECC.

Oragenics is responsible for funding the further development of lantibiotics toward the goal of commercialization, conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization or manufacturing of the

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product candidates. The term of the ECC commenced on June 5, 2012 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Oragenics upon 90 days written notice to the Company provided that no voluntary termination by Oragenics can be made during the first 18 months of the ECC. See Note 14 for additional arrangements with Oragenics.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Oragenics ECC 1 Unit of Accounting 1), as these deliverables could not be separated, and (ii) any manufacturing services to be provided for any Company materials in an approved product from the ECC (Oragenics ECC 1 Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Oragenics ECC 1 Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Oragenics to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to Oragenics ECC 1 Unit of Accounting 1. Oragenics ECC 1 Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the manufacturer. The $6,588 of upfront consideration was allocated to Oragenics ECC 1 Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $138 and $137 of collaboration revenue for the three months ended September 30, 2013 and 2012, respectively, and $ 412 and $182 of collaboration revenue for the nine months ended September 30, 2013 and 2012, respectively. The remaining balance of $5,857 is recorded as deferred revenue at September 30, 2013.

At inception of the agreement, the Company determined that the Oragenics ECC 1 Milestones are not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

Effective September 30, 2013, the Company entered into its second worldwide ECC with Oragenics (ECC 2). Under this ECC 2, at the transaction effective date, Oragenics received a license to the Company s technology platform to develop and commercialize probiotics, specifically the direct administration to humans of genetically modified probiotics for the treatment of diseases of the oral cavity, throat, sinus and esophagus as defined more specifically in the agreement. Upon execution of ECC 2, the Company received a technology access fee of 1,348,000 shares of Oragenics common stock valued at $3,503 and a $1,956 convertible promissory note maturing on or before December 31, 2013 as upfront consideration. Prior to the maturity date, Oragenics has the right to convert the promissory note into shares of Oragenics common stock subject to its shareholders approval. The conversion price is equal to the closing price of Oragenics common stock on the last trading day immediately prior to the date of conversion. The Company is entitled to receive additional shares of common stock, or at Oragenics option, receive a cash payment based upon the fair market value of the shares, upon the first instance of attainment of certain commercialization milestones of a product candidate developed from ECC 2 (Oragenics ECC 2 Milestones). The Oragenics ECC 2 Milestones include: (i) $2,000 within thirty days of the first instance of the achievement of the first

dosing of a patient in a phase II clinical trial for an Oragenics product developed from ECC 2 (Oragenics ECC 2 Product); (ii) $5,000 within thirty days of the first instance of the achievement of the meeting of the primary endpoint in a phase III clinical trial for an Oragenics ECC 2 Product; and (iii) $10,000 within thirty days of the first instance of the achievement of the first to occur of (a) the first commercial sale of an Oragenics ECC 2 Product anywhere in the world, or (b) the regulatory approval for an Oragenics ECC 2 Product. The Company receives reimbursement payments for research and development services provided pursuant to the agreement during the ECC and manufacturing services for Company materials provided to Oragenics during ECC 2. Oragenics will pay the Company 10% of the net sales derived from the sale of products developed from ECC 2.

Oragenics is responsible for funding the further development of probiotics toward the goal of commercialization, conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization or manufacturing of the product candidates. The term of ECC 2 commenced on September 30, 2013 and continues until terminated pursuant to ECC 2. ECC 2 may be terminated by either party in the event of certain material breaches defined in the agreement and following full payment of the technology access fee may be terminated voluntarily by Oragenics upon 90 days written notice to the Company.

The Company identified the deliverables at the inception of ECC 2 which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria:

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(i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Oragenics ECC 2 Unit of Accounting 1), as these deliverables could not be separated, and (ii) any manufacturing services to be provided for any Company materials in an approved product from ECC 2 (Oragenics ECC 2 Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Oragenics ECC 2 Unit of Accounting 1, the Company used the accumulated costs incurred as of ECC 2 by the Company on its technology platform licensed to Oragenics to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to Oragenics ECC 2 Unit of Accounting 1. Oragenics ECC 2 Unit of Accounting 2 was determined to be a contingent deliverable at the inception of ECC 2 due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the manufacturer. The $5,459 of upfront consideration, which is recorded as deferred revenue as of September 30, 2013, was allocated to Oragenics ECC 2 Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach.

At inception of ECC 2, the Company determined that the Oragenics ECC 2 Milestones are not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

The Company recognizes the reimbursement payments received for research services in the period when the services are performed and collection is reasonably assured. The Company recognized $344 and $137 of collaboration revenue for research and development services performed in the three months ended September 30, 2013 and 2012, respectively and $1,057 and $137 in the nine months ended September 30, 2013 and 2012, respectively, of which $220 is included as related party receivables on the September 30, 2013 consolidated balance sheet.

Fibrocell Science, Inc. ECC

Effective October 5, 2012, the Company entered into an ECC with Fibrocell Science, Inc. (Fibrocell), a publicly traded, autologous cellular therapeutic company focused on the development of innovative products for aesthetic, medical and scientific applications. Under the ECC, at the transaction effective date, Fibrocell received a license to the Company s technology platform to develop and commercialize genetically modified and non-genetically modified autologous fibroblasts and autologous dermal cells in the United States of America. Upon execution of the ECC, the Company received a technology access fee of 1,317,520 shares of Fibrocell s common stock valued at $7,576 as upfront consideration. The number of shares received reflects a 1-for-25 reverse stock split of Fibrocell s common stock effective April 30, 2013. The Company receives reimbursement payments for research and development services provided pursuant to the agreement during the ECC and manufacturing services for Company materials provided to Fibrocell during the ECC. On a quarterly basis, Fibrocell will pay the Company royalties of 7% of net sales up to $25,000 and 14% of net sales above $25,000 on each product developed from the ECC. If Fibrocell uses the Company s technology platform to improve the production of a current or new Fibrocell products not developed from the ECC, Fibrocell will pay the Company a quarterly royalty equal to 33% of the cost of goods sold savings generated by the improvement. Fibrocell is responsible for conducting preclinical and clinical development of product candidates, as well as for other aspects of commercialization and manufacturing of the product candidates. The term of the ECC commenced on October 5, 2012 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Fibrocell upon 90 days written notice to the Company.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Fibrocell Unit of Accounting 1), as these deliverables could not be separated, and (ii) any manufacturing services to be provided for any Company materials in an approved product from the ECC (Fibrocell Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Fibrocell Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Fibrocell to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to Fibrocell Unit of Accounting 1. Fibrocell Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the

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manufacturer. The $7,576 of upfront consideration was allocated to Fibrocell Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $158 and $474 of collaboration revenue for the three and nine months ended September 30, 2013, respectively. The remaining balance of $6,944 is recorded as deferred revenue at September 30, 2013.

Effective June 28, 2013, the Company entered into an amendment to the ECC with Fibrocell. The amendment expands the field of use defined in the ECC agreement. Under the terms of the amendment to the ECC, the Company received 1,243,781 shares of Fibrocell s common stock valued at $7,612 as a supplemental technology access fee, which is recorded as deferred revenue at September 30, 2013. These shares were received in July 2013. The Company allocated this additional consideration to Fibrocell Unit of Accounting 1 and will recognize it over the remaining expected life of the Company s technology platform using a straight-line approach. The Company recognized $169 of collaboration revenue for both the three and nine months ended September 30, 2013. The remaining balance of $7,443 is recorded as deferred revenue at September 30, 2013.

The Company recognizes the reimbursement payments received for research services in the period when the services are performed and collection is reasonably assured. The Company recognized $1,383 and $2,428 of collaboration revenue for research and development services performed in the three and nine months ended September 30, 2013, respectively, of which $1,041 is included as related party receivables on the September 30, 2013 consolidated balance sheet.

AmpliPhi ECC

Effective March 29, 2013, the Company entered into a worldwide ECC with AmpliPhi, a developer of bacteriophage-based antibacterial therapies to treat drug resistant infections. Under the ECC, at the transaction effective date, AmpliPhi received a license to the Company s technology platform to develop and commercialize new bacteriophage-based therapies to target specific antibiotic resistant infections as defined more specifically in the agreement. Upon execution of the ECC, the Company received a technology access fee of 24,000,000 shares of AmpliPhi s common stock valued at $2,400 as upfront consideration. The Company is entitled to additional consideration up to an aggregate amount of $7,500 per product payable either in cash or common stock at the option of AmpliPhi, upon the achievement of certain regulatory milestones (AmpliPhi Milestones). The Company receives reimbursement payments for research and development services provided pursuant to the agreement during the ECC and manufacturing services for Company materials provided to AmpliPhi during the ECC. On a quarterly basis, AmpliPhi will pay the Company royalties with percentages ranging from upper-single digits to lower-double digits of net sales of products developed under the ECC. AmpliPhi is responsible for conducting preclinical and clinical development of product candidates, as well as other aspects of commercialization and manufacturing of the product candidates. The term of the ECC commenced on March 29, 2013 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined the agreement and may be terminated voluntarily by AmpliPhi upon 90 days written notice to the Company.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (AmpliPhi Unit of Accounting 1), as these deliverables could not be separated, and (ii) any manufacturing services to be provided for any Company materials in an approved product from the ECC (AmpliPhi Unit of Accounting 2), which have standalone value and are contingent due to uncertainties on whether an approved product would be developed and require manufacturing by the Company. As VSOE and third party evidence of selling price was not available or practical, the BESP for each

unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for AmpliPhi Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to AmpliPhi to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to AmpliPhi Unit of Accounting 1. AmpliPhi Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainties surrounding whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the manufacturer. The $2,400 of upfront consideration was allocated to AmpliPhi Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $54 and $109 of collaboration revenue for the three and nine months ended September 30, 2013, respectively. The remaining balance of $2,291 is recorded as deferred revenue at September 30, 2013.

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The Company recognizes the reimbursement payments received for research services as collaboration revenue in the period when the services are performed and collection is reasonably assured. The Company recognized $128 and $162 of collaboration revenue for research and development services performed in the three and nine months ended September 30, 2013, respectively, of which $67 is included as related party receivables on the September 30, 2013 consolidated balance sheet. At inception of the agreement, the Company determined that the AmpliPhi Milestones are not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

Genopaver ECC

Effective March 29, 2013, the Company entered into a worldwide ECC with Genopaver, a limited liability company formed by affiliates of Third Security, LLC (Note 14). Genopaver was formed for the purpose of entering into the ECC and developing and commercializing products in the field of the fermentative production of alkaloids through genetically modified cell-lines and substrate feeds for use as active pharmaceutical ingredients or as commercially sold intermediates in the manufacture of active pharmaceutical ingredients. Upon execution of the ECC, the Company received a technology access fee of $3,000 as upfront consideration. The Company receives reimbursement payments for research and development services provided pursuant to the agreement during the ECC. Genopaver will pay the Company a royalty as a percentage in the lower-double digits on the quarterly gross profits of product sales from products developed under the ECC. Genopaver is responsible for the development and commercialization of the product candidates. The term of the ECC commenced on March 29, 2013 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined in the agreement and may be terminated voluntarily by Genopaver upon 90 days written notice to the Company.

The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, and the research and development services to be provided. The Company grouped the deliverables into one unit of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Genopaver Unit of Accounting), as the deliverables could not be separated. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Genopaver Unit of Accounting, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Genopaver to approximate the cost to recreate the deliverables included in the unit of accounting. The $3,000 of upfront consideration was allocated to the Genopaver Unit of Accounting and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $68 and $136 of collaboration revenue for the three and nine months ended September 30, 2013, respectively. The remaining balance of $2,864 is recorded as deferred revenue at September 30, 2013.

The Company recognizes the reimbursement payments received for research services as collaboration revenue in the period when the services are performed and collection is reasonably assured. The Company recognized $315 and $528 of collaboration revenue for research and development services performed in the three and nine months ended September 30, 2013, respectively, of which $241 is included as related party receivables on the September 30, 2013 consolidated balance sheet. Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

Soligenix ECC

Effective April 27, 2013, the Company entered into a worldwide ECC with Soligenix, Inc. (Soligenix), a clinical stage biopharmaceutical company focused on developing products to treat inflammatory diseases and biodefense countermeasures. Under the ECC, at the transaction effective date, Soligenix received a license to the Company s technology platform to develop and commercialize human monoclonal antibody therapies for the treatment of melioidosis. Upon execution of the ECC, the Company received a technology access fee of 1,034,483 shares of Soligenix s common stock valued at $1,331 as upfront consideration. The Company is entitled to additional consideration up to an aggregate amount of $7,000 per product payable either in cash or common stock at the option of Soligenix, upon the achievement of certain regulatory milestones (Soligenix Milestones). The Company receives reimbursement payments for research and development services and manufacturing services for Company materials provided to Soligenix during the term of the ECC. On a quarterly basis, Soligenix will pay the Company royalties with percentages ranging from upper-single digits to lower-double digits of net sales of products developed under the ECC. Soligenix is responsible for conducting preclinical and clinical development of product candidates, as well as other aspects of commercialization and manufacturing of the product candidates. The term of the ECC commenced on April 27, 2013 and continues until terminated pursuant to the ECC agreement. The ECC may be terminated by either party in the event of certain material breaches defined the agreement and may be terminated voluntarily by Soligenix upon 90 days written notice to the Company.

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The Company identified the deliverables at the inception of the ECC which include the license to the Company s technology platform, participation on the JSC, the research and development services and any manufacturing services to be provided. The Company grouped the deliverables into two units of accounting based on the nature of the deliverables and the separation criteria: (i) the license to the Company s technology platform, the Company s participation on the JSC and research and development services to be provided (Soligenix Unit of Accounting 1), as these deliverables could not be separated, and (ii) any manufacturing services to be provided for any Company materials in an approved product from the ECC (Soligenix Unit of Accounting 2), which have standalone value and are contingent due to the uncertainty of whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the manufacturer. As VSOE and third party evidence of selling price was not available or practical, the BESP for each unit of accounting was determined using a historical cost approach due to the early stage of development of the Company s technology. In establishing BESP for Soligenix Unit of Accounting 1, the Company used the accumulated costs incurred as of the ECC by the Company on its technology platform licensed to Soligenix to approximate the cost to recreate the deliverables included in this unit of accounting. All upfront consideration was allocated to Soligenix Unit of Accounting 1. Soligenix Unit of Accounting 2 was determined to be a contingent deliverable at the inception of the ECC due to the uncertainty of whether an approved product would be developed and require manufacturing by the Company and whether the Company would elect to be the manufacturer. The $1,331 of upfront consideration was allocated to Soligenix Unit of Accounting 1 and will be recognized over the expected life of the Company s technology platform using a straight-line approach. The Company recognized $30 and $50 of collaboration revenue for the three and nine months ended September 30, 2013, respectively. The remaining balance of $1,281 is recorded as deferred revenue at September 30, 2013.

The Company recognizes the reimbursement payments received for research services as collaboration revenue in the period when the services are performed and collection is reasonably assured. The Company recognized $13 of collaboration revenue for research and development services performed in the three and nine months ended September 30, 2013, all of which is included as related party receivables on the September 30, 2013 consolidated balance sheet. At inception of the agreement, the Company determined that the Soligenix Milestones are not substantive and cannot be recognized when earned in accordance with ASU 2010-17 as the Milestone Method substantive criteria discussed in Note 2 were not met. Royalties related to product sales will be recognized when earned as the payments relate directly to products that have been fully developed and for which the Company has satisfied all of its obligations.

AquaBounty ECC

On February 14, 2013, the Company entered into an ECC with AquaBounty. The Company will be reimbursed for research and development services as provided for in the ECC agreement. In the event of product sales from a product developed from the ECC, the Company will receive 16.66% of quarterly gross profits for each product. All revenues and expenses related to this ECC will be eliminated in consolidation (Note 6).

S & I Ophthalmic ECC

On September 30, 2013, the Company entered into a worldwide ECC with S & I Ophthalmic, the joint venture between the Company and Sun Pharmaceutical Subsidiary (Note 7). The ECC grants S & I Ophthalmic an exclusive worldwide license to the Company s technology platform to develop and commercialize therapies in humans for the treatment of ocular diseases defined more specifically in the agreement. The Company will be reimbursed for research and development services and manufacturing services as provided for in the ECC agreement. Subject to certain expense allocations, S & I Ophthalmic will pay the Company royalties with percentages ranging from mid-single digits and above of the net sales derived from the sale of products developed under the ECC.

4. Short-term and Long-term Investments

The Company s investments are classified as available-for-sale. The following table summarizes the amortized cost, gross unrealized gains and losses and fair value of available-for-sale investments as of September 30, 2013:

	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Aggregate Fair Value
U.S. government debt securities	$ 205,747	$ 27	$ (6)	$ 205,768
Commercial paper	10,242	6	(1)	10,247
Certificates of deposit	1,768		(2)	1,766
Total	$ 217,757	$ 33	$ (9)	$ 217,781

For more information on our method for determining the fair value of our assets, see Note 2 Fair Value of Financial Instruments .

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The estimated fair value of available-for-sale investments classified by their contractual maturities as of September 30, 2013 was as follows:

Due within one year	$ 136,672
After one year through two years	81,109
Total	$ 217,781

Changes in market interest rates and bond yields cause certain of our investments to fall below their cost basis, resulting in unrealized losses on investments. As of September 30, 2013, we had unrealized losses of $9 related to investments that had a fair value of $73,144. The unrealized losses of the Company s investments were primarily a result of unfavorable changes in interest rates subsequent to the initial purchase of these investments and have been in a loss position for less than 12 months.

As of September 30, 2013, we did not consider any of our investments to be other-than-temporarily impaired. When evaluating our investments for other-than-temporary impairment, we review factors such as the length of time and extent to which fair value has been below its cost basis, the financial condition of the issuer, our ability and intent to hold the security and whether it is more likely than not that we will be required to sell the investment before recovery of its cost basis.

5. Fair Value Measurements

The carrying amount of cash and cash equivalents, receivables, prepaid expenses and other current assets, accounts payable, accrued compensation and benefits, other accrued liabilities, and related party payables approximate fair value due to the short maturity of these instruments.

The following table presents the placement in the fair value hierarchy of financial assets that are measured at fair value on a recurring basis, including the items for which the fair value option has been elected, at September 30, 2013:

	Quoted prices in active markets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	September 30, 2013
Assets				
U.S. government debt securities (Note 4)	$	$ 205,768	$	$ 205,768
Commercial paper (Note 4)		10,247		10,247
Certificates of deposit (Note 4)		1,766		1,766
Equity securities (Note 3)	75,754	31,813		107,567
	$ 75,754	$ 249,594	$	$ 325,348

The following table presents the placement in the fair value hierarchy of financial assets that are measured at fair value on a recurring basis, including the items for which the fair value option has been elected, at December 31, 2012:

	Quoted prices in active markets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)	December 31, 2012
Assets				
Certificates of deposit (Note 4)	$	$ 260	$	$ 260
Equity securities (Note 3)	72,988	10,128		83,116
	$ 72,988	$ 10,388	$	$ 83,376

There were no financial liabilities measured on a recurring basis at September 30, 2013 and December 31, 2012.

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The method used to estimate the fair value of the Level 1 assets in the tables above is based on observable market data as these equity securities are publicly-traded. The method used to estimate the fair value of the Level 2 short-term investments in the tables above is based on professional pricing sources for identical or comparable instruments, rather than direct observations of quote prices in active markets. The method used to estimate the fair value of the Level 2 equity securities in the tables above is based on the quoted market price of the publicly-traded security, adjusted for a discount for lack of marketability.

There were no transfers between levels of the fair value hierarchy in the three and nine months ended September 30, 2013.

6. Investment in AquaBounty

On November 16, 2012, the Company acquired 48,631,444 shares of AquaBounty common stock, representing 47.56% of the then outstanding shares of AquaBounty, for $6,000 through a definitive purchase agreement with an existing AquaBounty shareholder and its affiliate. The carrying amount of the investment in AquaBounty was $5,726 at December 31, 2012. Based on closing quoted market prices (Level 1), the fair value of the investment in AquaBounty was approximately $14,300 at December 31, 2012.

On November 29, 2012, the Company entered into a promissory note purchase agreement (promissory note) with AquaBounty. The promissory note allows for the Company to loan up to $500 to AquaBounty. Draws on the promissory note by AquaBounty accrued annual interest of 3% and were set to mature no later than May 28, 2013. As of December 31, 2012, AquaBounty had drawn $200 on the promissory note. This outstanding balance plus accrued interest is included in related party receivables on the December 31, 2012 consolidated balance sheet. In January and February 2013, AquaBounty borrowed additional installments of $200 and $100, respectively, on the promissory note. On March 15, 2013, AquaBounty repaid the $500 promissory note plus accrued interest in its entirety.

On March 15, 2013, the Company acquired 18,714,814 shares of AquaBounty for $4,907 in a private subscription offering, thereby increasing the Company s ownership in AquaBounty to 53.82%, resulting in the Company gaining control over AquaBounty, and began consolidating. Commencing on that date, the Company includes AquaBounty in its consolidated results of operations and financial position pursuant to the step acquisition guidance in ASC 805, *Business Combinations*. The Company recognized a gain of $7,415 to account for the difference between the carrying value and the fair value of the previously held 47.56% equity interest. The fair value of the consideration transferred included:

Consideration paid	$ 4,907
Fair value of noncontrolling interest	15,153
Fair value of the Company s investment in affiliate held before the business combination	12,751
Fair value of the consideration transferred	$ 32,811

The Company used the private subscription price to measure fair value of the Company s previously held investment and noncontrolling interest. The preliminary estimated fair value of assets acquired and liabilities assumed at the acquisition date is shown below:

Cash	$ 5,419
Short-term investments	14
Trade receivables	4
Other receivables	9
Prepaid expenses and other	200
Property, plant and equipment	1,241
Intangible assets	14,900
Other assets	22
Total assets acquired	21,809
Accounts payable	156
Accrued compensation and benefits	94
Other accrued liabilities	395
Long-term debt	2,199
Total liabilities assumed	2,844
Net assets acquired	18,965
Goodwill	13,846
Total consideration	$ 32,811

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The fair value of assets acquired and liabilities assumed at the acquisition date are considered preliminary and is subject to revision when the valuation of intangible assets is finalized upon receipt of the final valuation report from a third party valuation expert. The preliminary fair value of acquired intangible assets was determined using the multi-period excess earnings method, a variation of the income approach. The multi-period excess earnings method estimates the value of an intangible asset equal to the present value of the incremental after-tax cash flows attributable to the intangible asset. The acquired intangible assets consist of in-process research and development until regulatory approval is obtained, at which point the intangible assets will be accounted for as definite lived intangible assets and amortized over the expected useful life of fifteen years. The goodwill consists of future revenue opportunities and the potential for expansion of AquaBounty products. The goodwill is not expected to be deductible for tax purposes. The fair value of assets acquired and liabilities assumed at the acquisition date are also subject to revision upon the Company s continued evaluation of the fair value of long term debt.

The results of operations of AquaBounty are included in the consolidated statement of operations beginning on the acquisition date. The following unaudited condensed pro forma financial information for the three months ended September 30, 2012 and the nine months ended September 30, 2013 and 2012 is presented as if the acquisition had been consummated on January 1, 2012:

	Three Months Ended September 30, 2012	Nine months Ended September 30,	
		2013	2012
		Pro forma	
Revenues	$ 2,904	$ 16,890	$ 7,269
Net loss	(21,483)	(35,742)	(46,858)
Net loss attributable to noncontrolling interest	459	1,496	1,541
Net loss attributable to Intrexon	(21,024)	(34,246)	(45,317)
Accretion of dividends on redeemable convertible preferred stock	(5,469)	(18,391)	(16,291)
Net loss attributable to Intrexon common shareholders	$ (26,493)	$ (52,637)	$ (61,608)
Net loss attributable to Intrexon common shareholders per share, basic and diluted	$ (4.75)	$ (2.39)	$ (11.19)

The pro forma net loss for the nine months ended September 30, 2013 excludes the $7.4 million non-recurring gain on remeasurement of the Company s previously held investment in AquaBounty. The pro forma net loss for the nine months ended September 30, 2012 includes this non-recurring gain on remeasurement.

7. Investment in S & I Ophthalmic

On September 30, 2013, the Company and Sun Pharmaceutical Subsidiary entered into a Limited Liability Company Agreement (Sun LLC Agreement) which governs the affairs and the conduct of business of S & I Ophthalmic, a joint

venture to develop therapies for the treatment of ocular diseases. S & I Ophthalmic leverages experience and technology from both the Company and Sun Pharmaceutical. Both the Company and Sun Pharmaceutical Subsidiary made an initial capital contribution of $5,000 in October 2013 for a 50% membership interest in S & I Ophthalmic. In cases in which the board of managers of S & I Ophthalmic (S & I Board) determines that additional capital contributions are necessary in order for S & I Ophthalmic to conduct business and comply with its obligations under the ECC (Note 3), each of the Company and Sun Pharmaceutical Subsidiary have committed to making additional capital contributions to S&I Ophthalmic subject to certain limits defined in the agreement. Each has the right, but not the obligation, to make additional capital contributions above the defined limits when and if solicited by the S & I Board.

Beginning on the seventh anniversary of the effective date of the Sun LLC Agreement, and upon the second anniversary thereafter, the Company, as well as Sun Pharmaceutical Subsidiary, may make a cash offer to purchase all of the other s interest in S & I Ophthalmic. Upon receipt of such an offer, the other party must either agree to tender its interests at the offered price or submit a counteroffer at a price higher than the original offer. Such offer and counteroffer may continue until one party agrees to the other s price.

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S & I Ophthalmic shall be governed by the S & I Board which shall have four members. We, as well as Sun Pharmaceutical Subsidiary, have the initial right to appoint two members to the S & I Board. For so long as Sun Pharmaceutical Subsidiary and/or any of its affiliates is a member of S & I Ophthalmic and holds a percentage interest in S & I Ophthalmic that is at least equal to the percentage held by the Company and/or its affiliates, Sun Pharmaceutical Subsidiary will have the sole authority to select and appoint on behalf of S & I Ophthalmic each of the representatives of the S & I Ophthalmic on the ECC committees, and one such appointee will be an Empowered Representative of the S & I Ophthalmic under the terms of the ECC with final authority to resolve certain ECC committee disputes.

8. Property, Plant and Equipment, net

Property, plant and equipment consist of the following:

	September 30, 2013	December 31, 2012
Land	$ 55	$
Building	945	
Furniture and fixtures	869	857
Lab equipment	22,044	22,195
Leasehold improvements	5,149	4,972
Computer hardware	3,220	3,136
Construction in progress	10	14
Software	1,003	888
	33,295	32,062
Less: Accumulated depreciation and amortization	(16,275)	(13,375)
Property, plant and equipment, net	$ 17,020	$ 18,687

Depreciation expense was $1,058 and $1,308 for the three months ended September 30, 2013 and 2012, respectively, and $3,318 and $3,706 for the nine months ended September 30, 2013 and 2012, respectively.

9. Goodwill and Intangible Assets, net

The changes in the carrying amount of goodwill for the nine months ended September 30, 2013 are as follows:

Balance as of December 31, 2012	$
Acquisitions	13,846
Balance as of September 30, 2013	$ 13,846

No goodwill or accumulated impairment losses existed as of December 31, 2012. There are no accumulated impairment losses as of September 30, 2013.

Intangible assets consist of the following at September 30, 2013:

	Gross Carrying Amount	Accumulated Amortization	Net
Patents and related technologies	$ 34,342	$ (6,979)	$ 27,363
In-process research and development	14,900		14,900
Total	$ 49,242	$ (6,979)	$ 42,263

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Intangible assets consist of the following at December 31, 2012:

	Gross Carrying Amount	Accumulated Amortization	Net
Patents and related technologies	$ 34,342	$ (4,851)	$ 29,491
Favorable rent asset	646	(631)	15
Total	$ 34,988	$ (5,482)	$ 29,506

Amortization expense was $709 and $756 for the three months ended September 30, 2013 and 2012, respectively, and $2,143 and $2,270 for the nine months ended September 30, 2013 and 2012, respectively. At September 30, 2013, the weighted average useful life for patents and related technology was 12.4 years.

10. Income Taxes

There is no income tax benefit recognized for the three months ended September 30, 2013 and 2012 and for the nine months ended September 30, 2013 and 2012 due to the Company s history of net losses combined with an inability to confirm recovery of the tax benefits of the Company s losses and other net deferred tax assets. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. Due to the Company s history of net losses incurred from inception, no income tax benefit has been recorded and the corresponding deferred tax assets have been fully reserved as the Company cannot sufficiently be assured that these deferred tax assets will be realized.

At September 30, 2013, the Company has loss carryforwards for federal income tax purposes of approximately $235,100 available to offset future taxable income and federal and state research and development tax credits of approximately $6,600, prior to consideration of annual limitations that may be imposed under Section 382. These carryforwards will begin to expire in 2022.

11. Redeemable Convertible Preferred Stock and Shareholders Equity (Deficit)

The tables below represent a rollforward of the Redeemable Convertible Preferred Stock:

	Series A redeemable convertible preferred stock		Series B redeemable convertible preferred stock		Series B-1 redeemable convertible preferred stock	
	Shares	Amount	Shares	Amount	Shares	Amount
Balances at December 31, 2012	705,400	$ 1,358	694,000	$ 669	1,212,360	$ 1,360
Issuance of shares						
Accretion of dividends		52		19		37
Stock issuance costs						

Conversion to common stock	(705,400)	(1,410)	(694,000)	(688)	(1,212,360)	(1,397)
Settlement of fractional shares upon conversion to common stock						
Balances at September 30, 2013		$		$		$

	Series C redeemable convertible preferred stock		Series C-1 redeemable convertible preferred stock		Series C-2 redeemable convertible preferred stock	
	Shares	**Amount**	**Shares**	**Amount**	**Shares**	**Amount**
Balances at December 31, 2012	4,546,360	$ 7,134	15,934,528	$ 34,201	18,617,020	$ 44,512
Issuance of shares						
Accretion of dividends		266		1,272		1,660
Stock issuance costs						
Conversion to common stock	(4,546,360)	(7,400)	(15,934,528)	(35,473)	(18,617,020)	(46,172)
Settlement of fractional shares upon conversion to common stock						
Balances at September 30, 2013		$		$		$

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	Series C-3 redeemable convertible preferred stock		Series D redeemable convertible preferred stock		Series E redeemable convertible preferred stock	
	Shares	Amount	Shares	Amount	Shares	Amount
Balances at December 31, 2012	13,297,872	$ 29,770	19,803,685	$ 76,252	38,095,239	$ 211,403
Issuance of shares						
Accretion of dividends		1,103		2,827		7,931
Stock issuance costs						
Conversion to common stock	(13,297,872)	(30,873)	(19,803,685)	(79,078)	(38,095,239)	(219,332)
Settlement of fractional shares upon conversion to common stock				(1)		(2)
Balances at September 30, 2013		$		$		$

	Series F redeemable convertible preferred stock	
	Shares	Amount
Balances at December 31, 2012		$
Issuance of shares	19,047,619	150,000
Accretion of dividends		3,224
Stock issuance costs		(3,148)
Conversion to common stock	(19,047,619)	(150,075)
Settlement of fractional shares upon conversion to common stock		(1)
Balances at September 30, 2013		$

The Series F Redeemable Convertible Preferred Stock (Series F), Series E Redeemable Convertible Preferred Stock (Series E), Series D Redeemable Convertible Preferred Stock (Series D), Series C-3 Redeemable Convertible Preferred Stock (Series C-3), Series C-2 Redeemable Convertible Preferred Stock (Series C-2), Series C-1 Redeemable Convertible Preferred Stock (Series C-1), Series C Redeemable Convertible Preferred Stock (Series C), Series B-1 Redeemable Convertible Preferred Stock (Series B-1), Series B Redeemable Convertible Preferred Stock (Series B) and Series A Redeemable Convertible Preferred Stock (Series A) collectively are referred to as the Series Preferred .

Upon closing of the IPO on August 13, 2013, per the terms of the Series Preferred, all Series Preferred shares, including $68,850 of accrued but unpaid dividends thereon, automatically converted into 79,705,130 shares of common stock. Prior to conversion, the Series Preferred had optional redemption provisions whereby after May 25, 2016, but prior to the occurrence of a qualified IPO, the holders of greater than three-fourths of then issued and outstanding shares of the Series F, Series E, Series D, Series C-3, Series C-2, Series C-1 and Series C, voting as a

separate class, could have elected by written notice to require the Company to redeem all of the then issued and outstanding shares of Series F, Series E, Series D, Series C-3, Series C-2, Series C-1 and Series C at an amount equal to the stated price adjusted for any stock dividends, combination or splits plus all accrued but unpaid dividends. Upon receipt of such written notice, the Company must notify the holders of the Series B-1, Series B and Series A of the redemption notice, upon which the holders of each of those classes could have required the Company to redeem all of the then issued and outstanding shares of such class. As a result of this optional redemption provision, the Company accreted changes in the redemption value from the date of issuance of all Series Preferred shares with a resultant change to additional paid-in capital or accumulated deficit in the absence of additional paid-in capital. As of December 31, 2012, $50,549 of cumulative dividends had been accreted to the redemption price for Series Preferred on the Company s consolidated balance sheet.

12. Stock Option Plans

Intrexon Stock Option Plan

The Company records the fair value of stock options issued to employees and non-employees as of the grant date as stock-based compensation expense. Stock-based compensation expense for employees and non-employees is recognized over the requisite service

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period, which is typically the vesting period. Stock-based compensation cost that has been included in research and development expenses and general and administrative expenses amounted to $52 and $566, respectively, for the three months ended September 30, 2013, and $197 and $242, respectively, for the three months ended September 30, 2012. Stock-based compensation cost that has been included in research and development expenses and general and administrative expenses amounted to $402 and $1,411, respectively, for the nine months ended September 30, 2013, and $264 and $695, respectively, for the nine months ended September 30, 2012.

On April 18, 2008, the Company adopted the 2008 Equity Incentive Plan (the 2008 Plan) for employees and nonemployees pursuant to which the Company s board of directors may grant share based awards to officers, key employees and nonemployees. During 2011, the 2008 Plan was amended to increase the number of authorized awards under the 2008 plan from 2,857,142 to 5,714,285. Awards issued pursuant to the Company s 2004 Stock Option Plan, the 2004 Stock Option Plan for Nonemployees and the 2006 Stock Option Plan were consolidated into the 2008 Plan and are subject to, and administered under the terms of the 2008 Plan. Upon the effectiveness of the 2013 Omnibus Incentive Plan (the 2013 Plan), no new awards may be granted under the 2008 Plan. As of September 30, 2013, there are 2,637,117 awards outstanding under the 2008 Plan.

On July 26, 2013, the Company s shareholders and board of directors approved the adoption of the 2013 Plan for employees and nonemployees pursuant to which the Company s board of directors may grant share based awards to employees, officers, consultants, advisors and nonemployee directors. The 2013 Plan became effective upon the closing of the IPO and replaces the 2008 Plan. There are 7,000,000 shares of common stock reserved for issuance under the 2013 Plan. As of September 30, 2013, there are 60,500 awards outstanding under the 2013 Plan.

Stock option activity under the Company s award plans during the period indicated is as follows:

	Number of shares	Weighted average exercise price	Weighted average remaining contractual term
Balances at December 31, 2012	2,313,526	$ 5.90	7.87
Granted	764,209	11.07	
Exercised	(17,649)	(3.10)	
Forfeited	(325,604)	(6.94)	
Expired	(36,865)	(5.15)	
Balances at September 30, 2013	2,697,617	7.26	7.68
Vested at September 30, 2013	992,112	4.67	5.79
Vested and Expected to Vest at September 30, 2013(1)	2,434,816	6.20	6.91

(1) The number of stock options expected to vest takes into account an estimate of expected forfeitures.

Total unrecognized compensation costs related to nonvested awards at September 30, 2013 and December 31, 2012 were $5,523 and $4,910, respectively, and are expected to be recognized over a weighted-average period of approximately three years.

The Company currently uses authorized and unissued shares to satisfy share award exercises.

AquaBounty Stock Option Plan

The AquaBounty 2006 Equity Incentive Plan (the AquaBounty Plan) provides for the issuance of incentive stock options to employees of AquaBounty and non-qualified stock options and awards of restricted and direct stock purchases to its directors, officers, employees and consultants of AquaBounty. Unless otherwise indicated, options issued to employees, directors and non-employees are vested over one to three years and are exercisable for a term of ten years from the date of issuance. As of September 30, 2013, there were 6,624,000 options outstanding under the AquaBounty Plan at a weighted average exercise price of $0.25 per share of which 5,552,000 were exercisable. Stock based compensation cost for the three months ended and nine months ended September 30, 2013 amounted to $27 and $28, respectively, and is included in general and administrative expenses.

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13. Commitments and Contingencies

Operating Leases

The Company leases its facilities and certain equipment under noncancelable operating leases. The equipment leases are renewable at the option of the Company. At September 30, 2013, future minimum lease payments under noncancelable operating leases having initial or remaining noncancelable lease terms in excess of one year are as follows:

2013	$ 784
2014	3,290
2015	2,956
2016	2,341
2017	1,419
2018	72
	$ 10,862

Rent expense, including other facility expenses, was $1,272 and $1,255 in the three months ended September 30, 2013 and 2012, respectively, and $4,284 and $3,739 in the nine months ended September 30, 2013 and 2012, respectively.

During 2012, the Company subleased space in two of its facilities to two different entities, one of which is an affiliate of certain holders of preferred stock. One of these agreements was terminated during 2012. The second agreement remained in effect as of September 30, 2013. Rental income under sublease agreements was $91 and $0 for the three months ended September 30, 2013 and 2012, respectively, and $274 and $64 for the nine months ended September 30, 2013 and 2012, respectively. Future rental income for the sublease agreement in effect at September 30, 2013 is $91 for 2013, $365 for 2014, and $152 for 2015.

Research and Development

The Company has commitments with third parties in connection with research and development collaborations. See Note 2 for further discussion.

Long Term Debt

In January 2009, the Atlantic Canada Opportunities Agency (ACOA), a Canadian government agency, awarded AquaBounty a grant to provide funding of a research and development project. The total amount available under the award is C$2,872, or USD$2,785 as of September 30, 2013, which AquaBounty can claim over a five year period. All amounts claimed by AquaBounty must be repaid in the form of a 10% royalty on any products commercialized out of this research and development project until fully paid. The timing of repayment is uncertain. As of September 30, 2013, the total amount claimed by AquaBounty is $2,305 and is included in long term debt on the September 30, 2013 consolidated balance sheet.

In October 2003, AquaBounty obtained a term loan with the ACOA in the amount of C$250, or USD$242 as of September 30, 2013. AquaBounty repays this loan through monthly principal payments and the loan matures in December 2013. The outstanding balance as of September 30, 2013 is $7 and is included in the current portion of long

term debt on the September 30, 2013 consolidated balance sheet.

In August 2003, AquaBounty obtained a term loan with Enterprise PEI, a Canadian provincial government agency, in the amount of C$300, or USD$291 as of September 30, 2013. AquaBounty repays this loan through monthly principal and interest payments and the loan matures in December 2013. The outstanding balance as of September 30, 2013 is $10 and is included in the current portion of long term debt on the September 30, 2013 consolidated balance sheet.

In November 1999, Technology Partnership Canada (TPC), a Canadian government agency, agreed to provide AquaBounty funding up to C$2,965, or USD$2,875 as of September 30, 2013, to support AquaBounty s research and development. This funding was completed in 2003. The funding provided by TPC is repayable to TPC in the form of a 5.2% royalty on revenues generated from AquaBounty s technology. Per the funding agreement with TPC, AquaBounty has no repayment obligations after June 30, 2014 even if the total amount has not been repaid as of such date. As of September 30, 2013, the estimated balance to be paid by June 30, 2014 is $194 and is included in the current portion of long term debt on the September 30, 2013 consolidated balance sheet.

Contingencies

The Company may become subject to claims and assessments from time to time in the ordinary course of business. Such matters are subject to many uncertainties and outcomes are not predictable with assurance. The Company accrues liabilities for such matters

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when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. As of September 30, 2013 and December 31, 2012, the Company does not believe that any such matters, individually or in the aggregate, will have a material adverse effect on the Company s business, financial condition, results of operations, or cash flows.

14. Related Party Transactions

Third Security, LLC (Third Security) and Affiliates

Certain affiliates of Third Security were shareholders of the Series B, B-1, C, C-1, C-2, C-3, D, E, and F Redeemable Convertible Preferred Stock, which converted to common stock upon completion of our IPO.

On June 6, 2011, the Company entered into a worldwide exclusive licensing agreement with Halozyme Therapeutics, Inc. (Halozyme) for the use of Halozyme s proprietary enzyme in one of the Company s targeted therapeutics. The Company and Halozyme are related parties through common ownership by affiliates of Third Security. The Company s CEO also serves on Halozyme s board of directors. Under the terms of the agreement, the Company paid a license fee of $9,000 upon execution of the agreement. The Company is required to pay an annual exclusivity fee of $1,000 commencing June 6, 2012 and on each anniversary of the effective date of the agreement thereafter until a certain development event occurs. If the Company successfully develops a product candidate using the license in the exclusive field of use and achieves an established sales target, the Company could pay up to $54 million in milestone payments. The Company is obligated to pay tiered royalties on net sales of the approved product. The Company may terminate this agreement in whole or on a product-by-product basis at any time upon 90 days written notice to Halozyme.

The Manager of Third Security who is also a member of the Company s Board of Directors, (Board Member) assumed the role of CEO of the Company in April 2009 and served on a part-time basis in that capacity through 2011. In 2012, the CEO began serving in this role on a full-time basis. Although the CEO has not received compensation for his services as CEO, the Company recorded $388 in compensation expense for each of the three months ended September 30, 2013 and 2012, respectively, and $1,163 for each of the nine months ended September 30, 2013 and 2012, respectively, based on the estimated salary and benefits appropriate for the role.

Transactions with Other Shareholders

At September 30, 2013 and December 31, 2012, the Company leased two office facilities from an affiliate of certain holders of preferred stock. The Company has a receivable due from this affiliate in the form of security deposits which are included in other long term assets of $66 at September 30, 2013 and December 31, 2012. During the three months ended September 30, 2013 and 2012, the Company incurred rent and other facility expenses of $233 and $228, respectively. During the nine months ended September 30, 2013 and 2012, the Company incurred rent and other facility expenses of $680 and $670, respectively.

In the nine months ended September 30, 2013, the Company paid transaction fees in conjunction with the closing of the first and second rounds of Series F to a shareholder.

Transactions with ECC Parties

On January 6, 2011, in conjunction with the ECC with Ziopharm (Note 3), the Company purchased 2,426,235 shares of common stock at $4.80 per share at closing in a private placement. The Company agreed to purchase up to an additional $50,000 of common stock in conjunction with securities offerings that may be conducted by Ziopharm in

the future, subject to certain conditions and limitations. On February 7, 2011, the Company purchased 1,910,000 shares of Ziopharm common stock at $5.75 per share in the first such securities offering. On January 20, 2012, the Company purchased 1,923,075 shares of Ziopharm common stock at $5.20 per share in another securities offering. At September 30, 2013, the Company had approximately $29,000 remaining on its purchase commitment. In conjunction with the ECC and the initial share purchase, the CEO of the Company joined the board of directors of Ziopharm.

In conjunction with the ECC with Synthetic Biologics (Note 3), the Company is entitled to, at its election, purchase up to 19.99% of securities offerings that may be conducted by Synthetic Biologics in the future, subject to certain conditions and limitations. The Company has been granted the right to make purchases of Synthetic Biologics common stock in the open market up to an additional 10% of Synthetic Biologics common stock. The Company has made no purchases of Synthetic Biologics common stock.

In conjunction with the ECC with Oragenics (Note 3), the Company is entitled to, at its election, purchase up to 30% of securities offerings that may be conducted by Oragenics in the future, subject to certain conditions and limitations. The Company has made no purchases of Oragenics common stock under this right. On September 30, 2013, the Company purchased 1,300,000 shares of Oragenics common stock at $3.00 per share in a private transaction.

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In conjunction with the ECC with Soligenix (Note 3), the Company is entitled to, at its election, participate in securities offerings conducted by Soligenix in the future, subject to certain conditions and limitations. The Company has made no purchases of Soligenix s common stock.

15. Net Income (Loss) per Share

The following table presents the computation of basic and diluted net income (loss) per share for the three months ended September 30, 2013 and 2012 and the nine months ended September 30, 2013 and 2012:

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
Historical net income (loss) per share:				
Numerator:				
Net income (loss) attributable to Intrexon	$ 15,440	$ (20,490)	$ (26,776)	$ (50,937)
Accretion of dividends on redeemable convertible preferred stock	(4,044)	(5,469)	(18,391)	(16,291)
Undistributed earnings allocated to preferred shareholders	(3,106)			
Net income (loss) attributable to common shareholders	$ 8,290	$ (25,959)	$ (45,167)	$ (67,228)
Denominator:				
Weighted average shares outstanding, basic	54,305,354	5,576,526	22,056,396	5,506,043
Weighted average effect of dilutive stock options and warrants	1,845,642			
Weighted average shares outstanding, diluted	56,150,996	5,576,526	22,056,396	5,506,043
Net income (loss) attributable to common shareholders per share, basic	$ 0.15	$ (4.66)	$ (2.05)	$ (12.21)
Net income (loss) attributable to common shareholders per share, diluted	$ 0.15	$ (4.66)	$ (2.05)	$ (12.21)

The following potentially dilutive securities have been excluded from the computations of diluted weighted average shares outstanding as of September 30, 2013 and 2012 for the three months ended September 30, 2012 and the nine months ended September 30, 2013 and 2012, as they would have been anti-dilutive:

	September 30,	
	2013	2012

Common shares issuable upon conversion of all Series Preferred		61,796,890
Options	2,697,617	2,412,575
Warrants	414,404	511,098
Total	3,112,021	64,720,563

In addition to the potentially dilutive securities in the table above, Series Preferred cumulative dividends convertible into common shares at a price per share equal to the fair market value of a common share at the time of conversion have been excluded from the computation of diluted weighted-average shares outstanding as of September 30, 2012.

The Company excluded 60,500 stock options from the computation of diluted weighted average shares outstanding as of September 30, 2013 for the three months ended September 30, 2013 as they would have been anti-dilutive.

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16. Subsequent Events

On October 1, 2013, the Company purchased 2,439,024 shares of Fibrocell common stock at a price per share of $4.10 in a public offering conducted by Fibrocell.

On October 29, 2013, the Company purchased 2,857,143 shares of Ziopharm common stock at a price per share of $3.50 in a public offering conducted by Ziopharm.

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

The following Management s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the unaudited financial information and the notes thereto included in this Quarterly Report on Form 10-Q and the audited financial information and the notes thereto included in the Prospectus that forms a part of our Registration Statement on Form S-1 (File No. 333-189853), which was filed with the Securities and Exchange Commission (the SEC) pursuant to Rule 424 on August 8, 2013 (the Prospectus).

The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements and you are cautioned not to place undue reliance on forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Quarterly Report on Form 10-Q, particularly in Special Note Regarding Forward-Looking Statements and Risk Factors. The forward-looking statements included in this Quarterly Report on Form 10-Q are made only as of the date hereof.

Overview

We believe Intrexon is a leader in the field of synthetic biology, an emerging and rapidly evolving discipline that applies engineering principles to biological systems. Using our suite of proprietary and complementary technologies, we design, build and regulate gene programs, which are DNA sequences that consist of key genetic components. A single gene program or a complex, multi-genic program are fabricated and stored within a DNA vector. Vectors are segments of DNA used as a vehicle to transmit genetic information. DNA vectors can, in turn, be introduced into cells in order to generate a simple or complex cellular system, which are the basic and complex cellular activities that take place within a cell and the interaction of those systems in the greater cellular environment. It is these genetically modified cell systems that can be used to produce proteins, produce small molecules, or serve as cell-based products, which enable the development of new and improved products and manufacturing processes across a variety of end markets, including healthcare, food, energy and environmental sciences. Intrexon s synthetic biology capabilities include the ability to precisely control the amount, location and modification of biological molecules to control the function and output of living cells and optimize for desired results at an industrial scale.

We have devised our business model to bring many different commercial products to market through the formation of exclusive channel collaborations, or ECCs, with collaborators that have expertise within specific industry segments. In our ECCs, we provide expertise in the engineering, creation and modification of gene programs and cellular systems, and our collaborators are responsible for providing market and product development expertise, as well as regulatory, sales and marketing capabilities. Generally, our collaborators compensate us through payment of technology access fees, royalties, milestones and reimbursement of certain costs. This business model allows us to leverage our capabilities and capital across a broader landscape of product opportunities and end markets than we would be capable of addressing on our own.

In certain strategic circumstances, we may enter into a joint venture with an ECC collaborator. In that event, we will enter into an ECC with a joint venture entity and may contribute access to our technology, cash or both into the joint venture which we will jointly control with our ECC collaborator. Pursuant to a joint venture agreement, we may be required to contribute additional capital to the joint venture, and we may be able to receive a higher financial return than we would normally receive from an ECC to the extent that we and our ECC collaborator are successful in developing one or more products. We recently executed the first such joint venture agreement with a subsidiary of Sun Pharmaceutical Industries Ltd., an international specialty pharmaceutical company focused on chronic diseases. Alternatively, where a collaborator wishes to work with us to develop an early-stage program, we may execute a research collaboration pursuant to which we receive reimbursement for our development costs but the exclusive license rights, and related access fees, are deferred until completion of an initial research program.

In 2011, we entered into our first collaboration and have steadily increased the number over the past three years, entering into new agreements and expanding existing ECCs. To date, we have entered into 17 such agreements and expansions with 14 different counterparties, of which 16 remain active. We have 14 active ECCs, including one expansion, and two research collaborations that we anticipate could, if successful, become ECCs. Under the ECCs, we are developing products in the fields of healthcare and food. In healthcare, our ECCs include programs in oncology, anti-infectives, antibiotics and tissue repair. In food, we are working to increase the productivity and nutritional value of salmon and other fish. We are also working to establish ECCs in the areas of energy and environmental sciences.

On November 16, 2012, we acquired 48,631,444 shares of common stock of AquaBounty Technologies, Inc., or AquaBounty, representing 47.56 percent of the then outstanding shares of AquaBounty, through a definitive purchase agreement with an existing AquaBounty shareholder and its affiliate. We originally accounted for our investment in AquaBounty using the equity method. On March 15, 2013, we acquired 18,714,814 additional shares of AquaBounty common stock increasing our aggregate ownership in AquaBounty to 53.82 percent, resulting in us gaining control over AquaBounty. AquaBounty was consolidated on our results of operations and financial position beginning on March 15, 2013.

Effective July 26, 2013, the Company s board of directors and shareholders approved a reverse stock split of 1-for-1.75 of the Company s shares of common stock. Shareholders entitled to fractional shares as a result of the reverse stock split will receive a cash payment in lieu of receiving fractional shares. Our historical share and per share information have been retroactively adjusted to give effect to this reverse stock split. Shares of common stock underlying outstanding stock options and warrants were proportionately reduced and the respective exercise prices were proportionately increased in accordance with the terms of the agreements governing such securities. Shares of common stock reserved for issuance upon the conversion of all of our Series Preferred Stock were proportionately reduced and the conversion prices were proportionately increased.

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On August 13, 2013, we completed our initial public offering, or IPO, whereby we sold 11,499,998 shares of common stock (inclusive of 1,499,999 shares of common stock sold by us pursuant to the full exercise of an overallotment option granted to the underwriters in connection with the offering) at a price of $16.00 per share. The shares began trading on the NYSE on August 8, 2013. The aggregate net proceeds received by us from the IPO were $168.3 million, net of underwriting discounts and commissions and estimated offering expenses payable by us. Upon the closing of the IPO, all outstanding shares of convertible preferred stock, including accrued but unpaid dividends thereon, converted into 79,705,130 shares of common stock. Additionally, in connection with the closing of the IPO, we amended and restated our articles of incorporation pursuant to which we are now authorized to issue 200,000,000 shares of common stock and 25,000,000 shares of undesignated preferred stock.

Financial overview

We have incurred significant losses since our inception. We anticipate that we may continue to incur significant losses for the foreseeable future, and we may never achieve or maintain profitability. We have never generated any royalty revenues from sales of products by our collaborators and may never be profitable.

We expect our future capital requirements will be substantial, particularly as we continue to develop our business and expand our synthetic biology technology platform. We believe that our existing cash and cash equivalents and short-term and long-term investments and cash expected to received through our current collaborators will enable us to fund our operating expenses and capital expenditure requirements for at least the next 12 months.

Sources of revenue

We derive our revenues through the execution of ECCs for the development and commercialization of products enabled by our technologies. Generally, the terms of our ECCs provide that we receive some or all of the following: (i) technology access fees upon consummation of such ECC; (ii) reimbursements of costs incurred by us for our research and development and/or manufacturing efforts related to the specific application provided for in the ECC; (iii) milestone payments upon the achievement of specified development, regulatory and commercial activities; and (iv) royalties on sales of products arising from the collaboration.

Our technology access fees and milestone payments may be in the form of cash or securities of the collaborator. Because our ECCs contain multiple arrangements, we typically defer much of the technology access fees and milestone amounts received and recognize such revenues in the future over the anticipated performance period. We are also entitled to sublicensing revenues in those situations where our collaborators choose to license our technologies to other parties.

In future periods, our revenues will depend on the number of ECCs into which we enter, the advancement and creation of programs within our ECCs and the extent to which our collaborators bring products enabled by our technologies to market. Our revenues will also depend on the ability of AquaBounty to receive regulatory approval and establish successful commercialization of its AquAdvantage Salmon products. In light of our limited operating history and experience in consummating new ECCs, there can be no assurance as to the timing, magnitude and predictability of revenues to which we might be entitled.

In certain strategic circumstances, we may enter into a joint venture with an ECC collaborator. In that event, we will enter into an ECC with a joint venture entity and may contribute access to our technology, cash or both into the joint venture which we will jointly control with our ECC collaborator. Pursuant to a joint venture agreement, we may be required to contribute additional capital to the joint venture, and we may be able to receive a higher financial return than we would normally receive from an ECC to the extent that we and our ECC collaborator are successful in

developing one or more products.

Research and development expenses

We recognize research and development expenses as they are incurred. Our research and development expenses consist primarily of:

- salaries and related overhead expenses for personnel in research and development functions;
- fees paid to consultants and contract research organizations who perform research on our behalf and under our direction;
- costs related to laboratory supplies used in our research and development efforts;
- depreciation of leasehold improvements, laboratory equipment and computers;

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amortization of patents and related technologies acquired in mergers and acquisitions;

rent and utility costs for our research and development facilities; and

costs related to stock options granted to personnel in research and development functions.

We have no individually significant research and development projects and our research and development expenses primarily relate to either the costs incurred to expand or otherwise improve our multiple platform technologies or the costs incurred to develop a specific application of our technologies in support of current or prospective collaborators. Research and development expenses typically do not include significant development, including pre-clinical or clinical development, activities since they are the responsibility of our collaborators. Research and development expenses incurred for programs we support pursuant to an ECC agreement are reimbursed by the collaborator at cost and all other research and development programs may be terminated or otherwise deferred at our discretion. The amount of our research and development expenses may be impacted by, among other things, the number of ECCs and the number and size of programs we may support on behalf of an ECC.

The table below summarizes our research and development expenses incurred to expand or otherwise improve our multiple platform technologies or the costs incurred to develop a specific application of our technologies in support of current or prospective collaborators for the three and nine month periods ended September 30, 2013 and 2012. Other research and development expenses for these periods include indirect salaries and overhead expenses that are not allocated to either expanding or improving our multiple platform technologies or specific applications of our technologies in support of current or prospective collaborators.

	Three months ended September 30,		Nine months ended September 30,	
	2013	2012	2013	2012
	(In thousands)			
Expansion or improvement of our platform technologies	$ 3,792	$ 7,528	$ 12,982	$ 28,155
Specific applications of our technologies in support of current and prospective collaborators	5,241	4,236	16,132	13,366
Other	1,730	2,600	6,753	9,463
Total research and development expenses	$ 10,763	$ 14,364	$ 35,867	$ 50,984

We expect that our research and development expenses will increase as we continue to enter into ECCs and operate as a public company. We believe these increases will likely include increased costs related to the hiring of additional personnel in research and development functions, increased costs paid to consultants and contract research organizations and increased costs related to laboratory supplies.

General and administrative expenses

General and administrative expenses consist primarily of salaries and related costs for employees in executive, operational, finance and legal functions. Other significant general and administrative expenses include rent and utilities, insurance, legal services and expenses associated with obtaining and maintaining our intellectual property.

We expect that our general and administrative expenses will increase as we operate as a public company. We believe that these increases will likely include increased costs for director and officer liability insurance, costs related to the hiring of additional personnel and increased fees for outside consultants, lawyers and accountants. We also expect to incur increased costs to comply with corporate governance, internal controls and similar requirements applicable to public companies.

Other income (expense), net

We hold equity securities received and/or purchased from certain collaborators. Other than the investment in AquaBounty which was accounted for using the equity method discussed below, we elected the fair value option to account for our equity securities held in these collaborators. These equity securities are recorded at fair value at each reporting date. Unrealized appreciation (depreciation) resulting from fair value adjustments are reported as other income (expense) in the consolidated statement of operations. As such, we bear the risk that fluctuations in the securities share prices may significantly impact our results of operations.

Interest income consists of interest earned on our cash and cash equivalents and short-term and long-term investments.

Interest expense pertains to equipment currently under four capitalized leases. Two of these capitalized leases mature in 2013, one matures in 2014, and the last one matures in 2015.

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On March 15, 2013, we recorded a gain on our previously held equity investment in AquaBounty; such gain represented the adjustment to fair value of the pro rata share of our original investment.

Equity in net income (loss) of affiliate

For the nine months ended September 30, 2013 equity in net loss of affiliate is our pro-rata share of our equity method investment s operating results, adjusted for accretion of basis difference. From our initial investment in AquaBounty on November 16, 2012 and through March 15, 2013, we accounted for our investment using the equity method of accounting as we had the ability to exercise significant influence over, but not control of, the operating activities of AquaBounty. On March 15, 2013, we acquired 18,714,814 additional shares of AquaBounty increasing our ownership in AquaBounty to 53.82 percent. We have consolidated AquaBounty in our results of operations and financial position beginning on March 15, 2013.

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Results of operations

Comparison of the three months ended September 30, 2013 and the three months ended September 30, 2012

The following table summarizes our results of operations for the three months ended September 30, 2013 and 2012, together with the changes in those items in dollars and as a percentage:

	Three months ended September 30,		Dollar change	% Change
	2013	2012		
	(In thousands)			
Revenues:				
Collaboration revenues	$ 6,028	$ 2,904	$ 3,124	107.6%
Other revenues	105	21	84	400.0%
Total revenues	6,133	2,925	3,208	109.7%
Operating expenses:				
Research and development	10,763	14,364	(3,601)	(25.1)%
General and administrative	7,407	5,046	2,361	46.8%
Total operating expenses	18,170	19,410	(1,240)	(6.4)%
Operating loss	(12,037)	(16,485)	4,448	(27.0)%
Total other income (expense), net	27,028	(4,005)	31,033	774.9%
Net income (loss)	14,991	(20,490)	35,481	173.2%
Net loss attributable to noncontrolling interest	449		449	100.0%
Net income (loss) attributable to Intrexon	$ 15,440	$ (20,490)	$ 35,930	175.4%

Revenues

Total revenues were $6.1 million for the three months ended September 30, 2013 compared to $2.9 million for the three months ended September 30, 2012, an increase of $3.2 million, or 109.7 percent. The following table shows the collaboration revenue recognized for upfront and milestone payments received from our collaborators and reimbursements received for research and development services provided to our collaborators for the three months ended September 30, 2013 and 2012, together with the changes in those items:

	Upfront and milestone payments			Research and development services			Total		
	Three months ended September 30,		Dollar change	Three months ended September 30,		Dollar change	Three months ended September 30,		Dollar change
	2013	2012		2013	2012		2013	2012	
	(In thousands)								

ZIOPHARM Oncology, Inc.	$ 644	$ 314	$ 330	$ 2,122	$ 2,137	$ (15)	$ 2,766	$ 2,451	$ 315
Oragenics, Inc.	138	137	1	344	137	207	482	274	208
Fibrocell Science, Inc.	327		327	1,383		1,383	1,710		1,710
Other	318	36	282	752	143	609	1,070	179	891
Total	$ 1,427	$ 487	$ 940	$ 4,601	$ 2,417	$ 2,184	$ 6,028	$ 2,904	$ 3,124

The $3.1 million increase in collaboration revenue resulted primarily from the following items:

We executed our first collaboration with Fibrocell Science, Inc., or Fibrocell, in the fourth quarter of 2012 and expanded that collaboration in the second quarter of 2013 and as a result, have recognized $0.3 million in collaboration revenue from upfront payments and an additional $1.4 million for research and development services provided pursuant to this collaboration; and

We have executed additional collaborations since the beginning of the fourth quarter of 2012 through September 30, 2013 which collectively resulted in an additional $0.2 million in collaboration revenue from upfront payments and $0.5 million in research and development services.

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Research and development expenses

Research and development expenses were $10.8 million for the three months ended September 30, 2013 compared to $14.4 million for the three months ended September 30, 2012. The $3.6 million decrease in research and development expenses is primarily the result of the following:

- Salaries, benefits and other personnel expenses decreased $2.3 million to $4.5 million for the three months ended September 30, 2013 from $6.8 million for the three months ended September 30, 2012. The decrease is primarily related to a decrease in the number of employees in the three months ended September 30, 2013 compared to three months ended September 30, 2012. Throughout 2012 and the first half of 2013, we eliminated certain positions due to improvements in our production processes as well as our reliance on additional automation. We also transitioned from a primary emphasis on building our parts inventory and other platforms towards applying such platforms towards specific applications for the benefit of our current and prospective collaborators. We also consolidated and centralized certain research and development functions to eliminate redundancies which arose primarily as a result of acquisitions of various technologies in late 2011; and

- Lab supply expenses decreased $0.6 million to $1.4 million for the three months ended September 30, 2013 from $2.0 million for the three months ended September 30, 2012. Supplies used in DNA manufacturing decreased $0.5 million for the three months ended September 30, 2013 compared to the three months ended September 30, 2012. As discussed above, we transitioned from building our parts inventory towards applying our technologies for the benefit of current and prospective collaborators. The remaining decrease in lab supplies is the result of centralizing certain research and development functions as discussed above.

General and administrative expenses

General and administrative expenses increased $2.4 million to $7.4 million for the three months ended September 30, 2013 compared to $5.0 million for the three months ended September 30, 2012. The $2.4 million increase is primarily the result of salaries, benefits and other personnel expenses increasing $1.2 million to $4.0 million for the three months ended September 30, 2013 from $2.8 million for the three months ended September 30, 2012. This increase is primarily the result of our hiring of additional employees as we prepared to become a public company and also for the cost of AquaBounty employees since we began consolidating AquaBounty on March 15, 2013. Legal and professional expenses increased $0.6 million for the three months ended September 30, 2013 compared to the three months ended September 30, 2012 due to costs associated with our initial public offering.

Total other income (expense), net

Total other income (expense), net is primarily comprised of unrealized appreciation (depreciation) in fair value of equity securities which was $27.3 million for the three months ended September 30, 2013 compared to $(3.9) million for the three months ended September 30, 2012. The unrealized appreciation (depreciation) is the result of market change for the equity securities we hold in certain of our collaborators.

Comparison of the nine months ended September 30, 2013 and the nine months ended September 30, 2012

The following table summarizes our results of operations for the nine months ended September 30, 2013 and 2012, together with the changes in those items in dollars and as a percentage:

	Nine months ended September 30,		Dollar change	% Change
	2013	2012		
	(In thousands)			
Revenues:				
Collaboration revenues	$ 16,566	$ 7,163	$ 9,403	131.3%
Other revenues	324	106	218	205.7%
Total revenues	16,890	7,269	9,621	132.4%
Operating expenses:				
Research and development	35,867	50,984	(15,117)	(29.7)%
General and administrative	21,320	19,139	2,181	11.4%
Total operating expenses	57,187	70,123	(12,936)	(18.4)%
Operating loss	(40,297)	(62,854)	22,557	(35.9)%
Total other income, net	12,797	11,917	880	7.4%
Equity in net loss of affiliate	(390)		(390)	100.0%
Net loss	(27,890)	(50,937)	23,047	(45.2)%
Net loss attributable to noncontrolling interest	1,114		1,114	100.0%
Net loss attributable to Intrexon	$ (24,776)	$ (50,937)	$ 24,161	(47.4)%

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Revenues

Total revenues were $16.9 million for the nine months ended September 30, 2013 compared to $7.3 million for the nine months ended September 30, 2012, an increase of $9.6 million, or 132.4 percent. The following table shows the collaboration revenue recognized for upfront and milestone payments received from our collaborators and reimbursements received for research and development services provided to our collaborators for the nine months ended September 30, 2013 and 2012, together with the changes in those items:

	Upfront and milestone payments			Research and development services			Total		
	Nine months ended September 30,		Dollar	Nine months ended September 30,		Dollar	Nine months ended September 30,		Dollar
	2013	2012	change	2013	2012	change	2013	2012	change
	(In thousands)								
ZIOPHARM Oncology, Inc.	$ 1,932	$ 943	$ 989	$ 5,843	$ 5,095	$ 748	$ 7,775	$ 6,038	$ 1,737
Synthetic Biologics, Inc.	2,024	97	1,927	865	194	671	2,889	291	2,598
Oragenics, Inc.	412	182	230	1,057	137	920	1,469	319	1,150
Fibrocell Science, Inc.	643		643	2,428		2,428	3,071		3,071
Other	304	9	295	1,058	506	552	1,362	515	847
Total	$ 5,315	$ 1,231	$ 4,084	$ 11,251	$ 5,932	$ 5,319	$ 16,566	$ 7,163	$ 9,403

The $9.4 million increase in collaboration revenue resulted primarily from the following items:

Collaboration revenue recognized for upfront and milestone payments received from ZIOPHARM increased primarily due to the recognition of deferred revenue related to the achievement of a collaboration milestone of $18.3 million in October 2012. Reimbursements from research and development services provided to ZIOPHARM increased $0.7 million for the nine months ended September 30, 2013 compared to the nine months ended September 30, 2012 as a result of an increase of new programs initiated throughout the second half of 2012 and the first half of 2013;

Collaboration revenue for upfront payments received from Synthetic Biologics, Inc., or Synthetic Biologics, increased for the nine months ended September 30, 2013 compared to the nine months ended September 30, 2012 due to the immediate recognition of previously deferred revenue arising from our first Synthetic Biologics ECC. In April 2013, we and Synthetic Biologics agreed to terminate this ECC and as a result, we recognized the balance of deferred revenue of $1.5 million associated with the original upfront consideration received by us. Reimbursements for research and development services provided to Synthetic Biologics increased $0.7 million for the nine months ended September 30, 2013 compared to the nine months ended September 30, 2012 due primarily to the work

performed pursuant to the second ECC which was consummated in the second half of 2012;

Our first ECC with Oragenics commenced in June 2012. Our research and development services provided during the nine months ended September 30, 2013 have primarily consisted of research on improving production in the field specified in the ECC and developing and validating these improved production methods;

Our ECC with Fibrocell commenced in October 2012 and in June 2013, the field of use was expanded resulting in an additional $7.6 million of upfront consideration to us. The collaboration revenue recorded for this ECC consists both of amortization of the upfront consideration received in October 2012 and June 2013 and reimbursements for research and development services provided on the field of use specified in the ECC; and

The remaining increase of collaboration revenues is the result of the recognition of deferred revenue and reimbursements for research and development expenses for our other ECCs, including three additional ECCs entered into during 2013.

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Research and development expenses

Research and development expenses were $35.9 million for the nine months ended September 30, 2013 compared to $51.0 million for the nine months ended September 30, 2012. The $15.1 million decrease in research and development expenses is primarily the result of the following:

- Salaries, benefits and other personnel expenses decreased $7.5 million to $15.7 million for the nine months ended September 30, 2013 from $23.2 million for the nine months ended September 30, 2012. The decrease is primarily related to a decrease in the number of employees in the nine months ended September 30, 2013 compared to nine months ended September 30, 2012. Throughout 2012 and the first half of 2013, we eliminated certain positions due to improvements in our production processes as well as our reliance on additional automation. We also transitioned from a primary emphasis on building our parts inventory and other platforms towards applying such platforms towards specific applications for the benefit of our current and prospective collaborators. We also consolidated and centralized certain research and development functions to eliminate redundancies which arose primarily as a result of acquisitions of various technologies in late 2011;

- Expenses related to consultants and third party contract research organizations decreased $1.5 million to $3.2 million for the nine months ended September 30, 2013 from $4.7 million for the nine months ended September 30, 2012. The decrease is the result of our continuing efforts to reduce the level of research and development performed by third parties and, where practical, performing this research and development internally; and

- Lab supply expenses decreased $4.7 million to $4.0 million for the nine months ended September 30, 2013 from $8.7 million for the nine months ended September 30, 2012. Supplies used in DNA manufacturing decreased $3.5 million for the nine months ended September 30, 2013 compared to the nine months ended September 30, 2012. As discussed above, we transitioned from building our parts inventory towards applying our technologies for the benefit of current and prospective collaborators. The remaining decrease in lab supplies is the result of centralizing certain research and development functions as discussed above.

General and administrative expenses

General and administrative expenses were $21.3 million for the nine months ended September 30, 2013 compared to $19.1 million for the nine months ended September 30, 2012 resulting in an increase of $2.2 million. The $2.2 million increase in general and administrative expenses is the result of salaries, benefits and other personnel expenses increasing $1.7 million to $11.9 million for the nine months ended September 30, 2013 from $10.2 million for the nine months ended September 30, 2012. This increase is primarily the result of our hiring of additional employees as we prepared to become a public company and also the cost of AquaBounty employees since we began consolidating AquaBounty on March 15, 2013.

Total other income, net

Total other income, net is primarily comprised of unrealized appreciation in fair value of equity securities which was $5.7 million for the nine months ended September 30, 2013 compared to $12.0 million for the nine months ended

September 30, 2012. The unrealized appreciation is the result of market change for the equity securities we hold in other entities. Total other income (expense), net for the nine months ended September 30, 2013 includes a $7.4 million gain on our previously held equity interest in AquaBounty triggered by the requirement to consolidate AquaBounty as of March 15, 2013.

Equity in net income (loss) of affiliate

In November 2012, we purchased a 47.56 percent interest in AquaBounty and through March 15, 2013, we accounted for this investment using the equity method. Our equity in net loss of AquaBounty s operations of $0.4 million reflects our portion of the net losses of AquaBounty during the period January 1, 2013 through March 15, 2013.

Liquidity and capital resources

Sources of liquidity

We have incurred losses from operations since our inception in 1998 and as of September 30, 2013, we had an accumulated deficit of $364.2 million. From our inception through September 30, 2013, we have funded our operations principally with the proceeds received from the sale of $509.5 million of our preferred stock, net proceeds from our IPO of $168.3 million and the receipt of $12.5 million in prepayments of services by our collaborators. As of September 30, 2013, we had cash and cash equivalents of $61.2 million and short-term and long-term investments of $217.8 million. Cash in excess of immediate requirements is invested primarily in money market funds, certificates of deposits, U.S. government debt securities and commercial paper in order to maintain liquidity and capital preservation.

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Cash flows

The following table sets forth the significant sources and uses of cash for the periods set forth below:

	Nine months ended, September 30,	
	2013	2012
	(In thousands)	
Net cash provided by (used in):		
Operating activities	$ (43,459)	$ (49,195)
Investing activities	(221,704)	(17,097)
Financing activities	315,979	50,745
Effect of exchange rate changes on cash and cash equivalents	3	
Net increase (decrease) in cash and cash equivalents	$ 50,819	$ (15,547)

Cash flows from operating activities:

Net cash used in operating activities was $43.5 million for the nine months ended September 30, 2013 compared to $49.2 million for the nine months ended September 30, 2012. Net cash used in operating activities during the nine months ended September 30, 2013 was primarily comprised of our $27.9 million net loss and noncash items which primarily included (i) our unrealized appreciation on equity securities of $5.7 million and (ii) our $7.4 million gain on our previously held equity interest in AquaBounty. Net cash used in operating activities during the nine months ended September 30, 2012 was primarily composed of (i) our $50.9 million net loss inclusive of unrealized appreciation on equity securities of $12.0 million and (ii) the receipt of $10.0 million from one of our collaborators for a prepayment of research and development services.

Cash flows from investing activities:

Net cash used in investing activities was $221.7 million for the nine months ended September 30, 2013 compared to $17.1 million for the nine months ended September 30, 2012. During the nine months ended September 30, 2013, we invested cash received from our Series F financing and our IPO and in excess of our immediate requirements to purchase $233.2 million of U.S. government debt securities, commercial paper and certificates of deposit and also used $3.9 million to purchase shares of common stock of Oragenics. These cash outflows were offset by $15.5 million received upon the maturation of short-term investments. During the nine months ended September 30, 2012, we paid $10.0 million to purchase shares of common stock of ZIOPHARM and we paid $7.1 million for property and equipment purchases primarily to expand certain of our lab facilities.

Cash flows from financing activities:

Net cash provided by financing activities was $316.0 million for the nine months ended September 30, 2013 compared to $50.7 million for the nine months ended June, 2012. During the nine months ended September 30, 2013, we received $146.9 million of net proceeds from the sale of our Series F Preferred Stock and $168.8 million of net proceeds from our IPO. During the nine months ended September 30, 2012, we received $50.6 million of net proceeds from the sale of our Series E Redeemable Convertible Preferred Stock.

Future capital requirements

We established our current strategy and business model of commercializing our technologies through collaborators with development expertise in 2010 and we consummated our first ECC in January 2011. Through September 30, 2013 we received from our ECCs (i) upfront and milestone consideration totaling $79.4 million, of which $65.8 million has been deferred and will be recognized over future periods; and (ii) reimbursement of our costs incurred for work performed on behalf of our collaborators of $21.8 million. We believe that we will continue to consummate ECCs with new companies across our various market sectors, which will result in additional upfront, milestone and cost recovery payments in the future.

We believe that our existing cash and cash equivalents and short-term and long-term investments and cash expected to be received through our current collaborators will enable us to fund our operating expenses and capital expenditure requirements for at least the next 12 months.

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We have based our estimates on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect. Our future capital requirements will depend on many factors, including:

- progress in our research and development programs, as well as the magnitude of these programs;
- the timing, receipt and amount of upfront, milestone and other payments, if any, from present and future collaborators, if any;
- the timing, receipt and amount of sales and royalties, if any, from our potential products;
- the timing, receipt and amount of funding under future government contracts, if any;
- our ability to maintain and establish additional collaborative arrangements and/or new business initiatives;
- the timing of regulatory approval of AquaBounty products;
- the resources, time and cost required for the preparation, filing, prosecution, maintenance and enforcement of patent claims;
- the costs associated with legal activities, including litigation, arising in the course of our business activities and our ability to prevail in any such legal disputes; and
- the timing and extent of our obligation to participate in up to $19.0 million in equity financings of ZIOPHARM.

Until such time, if ever, as we can generate positive operating cash flows, we may finance our cash needs through a combination of equity offerings, debt financings, government or other third-party funding, strategic alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common shareholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common shareholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through government or other third-party funding, marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or to grant licenses on terms that may not be favorable to us.

Contractual obligations and commitments

The following table summarizes our significant contractual obligations and commercial commitments at September 30, 2013 and the effects such obligations are expected to have on our liquidity and cash flows in future periods:

	Total	Less than 1 year	1-3 years	3-5 years
		(In thousands)		
Operating Leases(1)(2)	$ 10,862	$ 3,227	$ 5,620	$ 2,015
Capital Leases	41	25	16	
Total	$ 10,903	$ 3,252	$ 5,636	$ 2,015

(1) We lease our facilities and certain equipment under noncancelable operating leases.
(2) On October 1, 2013, we renewed a lease for laboratory space. The renewal term began on October 1, 2013 and terminates on September 30, 2016. The aggregate rent payments for the term of the sublease are $1.2 million and are excluded from the table above.

In addition to the obligations in the table above, as of September 30, 2013 we also have the following significant contractual obligations described below.

In conjunction with our ECC with ZIOPHARM in 2011, we agreed to purchase up to $50.0 million of ZIOPHARM common stock in conjunction with securities offerings that may be conducted by ZIOPHARM in the future, subject to certain conditions and limitations. We purchased $10.0 million and $11.0 million in 2012 and 2011, respectively, of ZIOPHARM common stock in such securities offerings. The remaining obligation on this purchase commitment is approximately $29.0 million at September 30, 2013. This amount is not included in the table above due to the fact that the timing of such securities purchases cannot be predicted. On October 29, 2013, we purchased an additional $10.0 million in ZIOPHARM securities, reducing our future obligation to $19.0 million.

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In June 2011, we entered into an exclusive licensing agreement with Halozyme for the use of Halozyme s proprietary enzyme in one of our targeted therapeutics. We are related parties with Halozyme through common ownership by Third Security, LLC. Under the terms of this agreement, we are required to pay a non-refundable, annual exclusivity fee of $1.0 million on each anniversary of the agreement effective date until a certain development event occurs. The agreement requires us to pay up to $54.0 million of milestone payments upon the achievement of certain regulatory events. We are obligated to pay tiered royalties on net sales of an approved product developed with Halozyme s proprietary enzyme. We may terminate this agreement in whole or on a product-by-product basis at any time upon 90 days prior written notice to Halozyme. All payments related to this agreement are not included in the table above due to uncertainties surrounding the number of annual payments that will be required and the unpredictability of the timing and likelihood of achieving the milestones.

We acquired 100 percent of the outstanding capital stock of Immunologix in October 2011. The transaction included a contingent consideration arrangement which may require us to pay the selling shareholders 50 percent, subject to a maximum of $2.0 million, of revenue generated from Immunologix s technology applied towards a specific target as defined in the agreement up to a maximum of $2.0 million. This amount is not included in the table above due to the uncertainty of whether, if ever, we will pay this contingent consideration.

In conjunction with our ECC with Oragenics, we have the right, but not the obligation, to purchase up to 30 percent of securities offerings that may be conducted by Oragenics in the future, subject to certain conditions and limitations.

In December 2012, we received $2.5 million from Synthetic Biologics as prepayment of research and development services to be provided to Synthetic Biologics. Any remaining balance of this prepayment is refundable to Synthetic Biologics in the event our August 2012 ECC is terminated. Synthetic Biologics may voluntarily terminate the ECC upon 90 days written notice to us provided that no voluntary termination by Synthetic Biologics can be made during the first 18 months of the ECC. The remaining balance of this prepayment is $1.5 million at September 30, 2013 and is not included in the table above due to the uncertainty of the timing of the provision of these services by us and the unlikely termination of the ECC by either party.

We are also party to in-licensed research and development agreements with various academic and commercial institutions where we could be required to make future payments for annual maintenance fees as well as for milestones and royalties we might receive upon commercial sales of products which incorporate their technologies. These agreements are generally subject to termination by us and therefore no amounts are included in the tables above. At September 30, 2013, we had research and development commitments with third parties totaling $2.8 million of which $1.3 had not yet been incurred.

In January 2009, AquaBounty was awarded a grant to provide funding of a research and development project from the Atlantic Canada Opportunities Agency, a Canadian government agency. The total amount available under the award is C$2.9 million, or USD$2.8 million as of September 30, 2013, which AquaBounty can claim over a five year period. All amounts claimed by AquaBounty must be repaid in the form of a 10 percent royalty on any products commercialized out of this research and development project until fully paid. As of September 30, 2013, the total amount claimed by AquaBounty was $2.3 million and is included in long term debt in the September 30, 2013 unaudited consolidated balance sheet. This amount is not included in the table above due to the uncertainty of the timing of repayment. AquaBounty has $0.2 million of additional debt instruments that mature between December 2013 and June 2014.

In conjunction with the formation of a joint venture with an indirect subsidiary of Sun Pharmaceutical Industries, Ltd. in September 2013, we committed to making future capital contributions to the joint venture, subject to certain conditions and limitations, in order to comply with the obligations of the joint venture. We made a capital contribution

in the amount of $5.0 million in October 2013. In cases in which the board of managers of the joint venture determines that additional capital contributions are necessary, we have committed to making additional capital contributions subject to certain limitations. These future capital contributions are not included in the table above due to the uncertainty of the timing and amounts of such contributions.

Net operating losses

As of September 30, 2013, we had net operating loss carryforwards of approximately $235.1 million for U.S. federal income tax purposes available to offset future taxable income and U.S. federal and state research and development tax credits of $6.6 million, prior to consideration of annual limitations that may be imposed under Section 382 of the Internal Revenue Code of 1986, as amended, or Section 382. These carryforwards begin to expire in 2022.

Our past issuances of stock and mergers and acquisitions have resulted in ownership changes within the meaning of Section 382. As a result, the utilization of portions of our net operating losses may be subject to annual limitations. As of September 30, 2013, approximately $16.4 million of our net operating losses generated prior to 2008 are limited by Section 382 to annual usage limits of approximately $1.5 million. As of September 30, 2013, approximately $14.8 million of net operating losses were inherited via acquisition and are limited based on the value of the target at the time of the transaction. Future changes in stock ownership may also trigger an ownership change and, consequently, a Section 382 limitation.

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Off-balance sheet arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet arrangements, other than operating leases as mentioned above, as defined under Securities and Exchange Commission, or SEC, rules.

Critical accounting policies and estimates

Our management s discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which we have prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. We evaluate these estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

There have been no material changes to our critical accounting policies from those described in Management s discussion and analysis of financial condition and results of operations included in our Prospectus included in Registration Statement on Form S-1(File No. 333-189853), which was filed with the Securities and Exchange Commission pursuant to Rule 424 on August 8, 2013.

Recent accounting pronouncements

For information with respect to recent accounting pronouncements and the impact of these pronouncement on our consolidated financial statements, see Note 2 Summary of Significant Accounting Policies in the notes to the consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q.

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Item 3. Quantitative and Qualitative Disclosures About Market Risk

Interest rate risk

We had cash, cash equivalents and short-term and long-term investments of $279.0 million and $10.7 million at September 30, 2013 and December 31, 2012, respectively. Our cash and cash equivalents and short-term and long-term investments consist of cash, money market funds, U.S. government debt securities, commercial paper and certificates of deposit. The primary objective of our investment activities is to preserve principal, maintain liquidity and maximize income without significantly increasing risk. Our investments consist of U.S. government debt securities, commercial paper and certificates of deposit which may be subject to market risk due to changes in prevailing interest rates that may cause the fair values of our investments to fluctuate. We believe that a hypothetical 100 basis point increase in interest rates would not materially affect the fair value of our interest-sensitive financial instruments and any such losses would only be realized if we sold the investments prior to maturity.

Investments in publicly traded companies

We have common stock investments in several publicly traded companies that are subject to market price volatility. We have adopted the fair value method of accounting for these investments, except for our investment in AquaBounty as further described below, and therefore, have recorded them at fair value at the end of each reporting period with the unrealized gain or loss recorded as a separate component of other income (expense), net for the period. As of September 30, 2013 and December 31, 2012 the original aggregate cost basis of these investments was $110.8 million and $92.1 million, respectively, and the market value was $107.6 million and $83.1 million, respectively. The fair value of these investments is subject to fluctuation in the future due to the volatility of the stock market, changes in general economic conditions and changes in the financial conditions of these companies. The fair value of these investments as of September 30, 2013 would be approximately $118.4 million and $86.1 million, respectively, based on a hypothetical 10 percent increase or 20 percent decrease in the value of the investments. The fair value of these investments as of December 31, 2012 would be approximately $91.0 million and $66.0 million, respectively, based on a hypothetical 10 percent increase or 20 percent decrease in the value of the investments.

In November 2012, we acquired 47.56 percent of the outstanding common stock of AquaBounty and we accounted for this investment under the equity method of accounting for the period from acquisition date through March 15, 2013. On March 15, 2013, we acquired 18,714,814 additional shares of AquaBounty common stock for $4.9 million, thereby increasing our aggregate ownership to 53.82 percent upon closing. Accordingly, effective upon closing of the acquisition of the additional shares, we consolidated the assets and operating results of AquaBounty in our consolidated financial statements. The common stock of AquaBounty is traded on the London Stock Exchange and the fair value of our investment in AquaBounty at September 30, 2013 and December 31, 2012 was $26.1 million and $14.3 million, respectively. The fair value of our investment in AquaBounty as of September 30, 2013 would be approximately $28.7 million and $20.9 million, respectively, based on a hypothetical 10 percent increase or 20 percent decrease in the share price of AquaBounty. The fair value of our investment in AquaBounty as of December 31, 2012 would be approximately $15.7 million and $11.4 million, respectively, based on a hypothetical 10 percent increase or 20 percent decrease in the share price of AquaBounty.

Foreign currency exchange risk

Because the common stock of AquaBounty is traded on the London Stock Exchange, the fair value of our holdings is subject to fluctuations in foreign currency rates. In addition, some of AquaBounty s current expenses are denominated in Canadian dollars. We do not hedge our foreign currency exchange rate risk. The effect of a hypothetical 10 percent change in foreign currency exchange rates applicable to our business would not have a material impact on our

consolidated financial statements.

Item 4. Controls and Procedures

Pursuant to Rule 13a-15(b) under the Securities Exchange Act of 1934, as amended (the Exchange Act), we carried out an evaluation, under supervision and with the participation of our management, including our Chief Executive Officer (CEO), who is our principal executive officer, and our Chief Financial Officer (CFO), who is our principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined under Rule 13a-15(e) and 15(d)-15(e) under the Exchange Act) as of the end of the period covered by this report. Based upon that evaluation, as of the end of the period covered by this report, our CEO and CFO concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act, is recorded, processed, summarized and reported, within the time periods specified in the SEC s rules and forms, and that such information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

There has been no change in our internal control over financial reporting during the quarter ended September 30, 2013, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We are involved in litigation or legal matters incidental to our business activities. While the outcome of these matters cannot be predicted with certainty, we are vigorously defending them and do not currently expect that any of them will have a material adverse effect on our business or financial position. However, should one or more of these matters be resolved in a manner adverse to our current expectation, the effect on our results of operations for a particular fiscal reporting period could be material.

Item 1A. Risk Factors

As of the date of this report, there are no material changes to the risk factors previously disclosed in our Quarterly Report on Form 10-Q for the period ended June 30, 2013. In evaluating our risks, readers should carefully consider the risk factors discussed in our Quarterly Report on Form 10-Q for the period ended June 30, 2013, which could materially affect our business, financial condition or operating results, in addition to the other information set forth in this report and in our other filings with the Securities and Exchange Commission.

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

(a) Sales of Unregistered Securities

Between July 1, 2013 and September 30, 2013, we granted options to purchase an aggregate of 18,000 shares of common stock, with an exercise price of $28.69 per share, to employees pursuant to our 2013 Omnibus Incentive Plan. The sales of the above securities were exempt from registration under the Securities Act of 1933, as amended (Securities Act), in reliance upon Section 4(2) of the Securities Act, or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed upon the stock certificates issued in these transactions. Other than the option grants discussed above, there were no sales of unregistered securities during the period from July 1, 2013 through September 30, 2013.

(b) Use of Proceeds

On August 7, 2013, our registration statement on Form S-1 (File No. 333-189853) was declared effective by the Securities and Exchange Commission for our initial public offering pursuant to which we sold an aggregate of 11,499,998 shares of our common stock (inclusive of 1,499,999 shares of common stock sold by us pursuant to the full exercise of an overallotment option granted to the underwriters in connection with the offering) at a price to the public of $16.00 per share for aggregate gross offering proceeds of approximately $184.0 million. J.P. Morgan Securities LLC and Barclays Capital Inc. acted as joint book-running managers. On August 13, 2013, we closed the sale of such shares, resulting in net proceeds to us of approximately $168.3 million after deducting underwriting discounts and commissions of approximately $12.9 million and other offering expenses of approximately $2.8 million. No payments were made by us to directors, officers or persons owning ten percent or more of our common stock or to their associates, or to our affiliates. We invested the funds received in cash equivalents and other short-term and long-term investments in accordance with our investment policy. There has been no material change in the planned

use of proceeds from our initial public offering as described in our final prospectus, dated August 7, 2013, and filed with the Securities and Exchange Commission on August 8, 2013 pursuant to Rule 424(b).

(c) Issuer Purchases of Equity Securities

Not applicable.

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Item 6. Exhibits

Exhibit No.	Description
31.1	Certification of Randal J. Kirk, Chairman and Chief Executive Officer (Principal Executive Officer) of Intrexon Corporation, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Rick L. Sterling, Chief Financial Officer (Principal Financial Officer) of Intrexon Corporation, pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Randal J. Kirk, Chairman and Chief Executive Officer (Principal Executive Officer) of Intrexon Corporation, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Rick L. Sterling, Chief Financial Officer (Principal Financial Officer) of Intrexon Corporation, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.0*	Interactive Data File (Quarterly Report on Form 10-Q, for the quarterly period ended September 30, 2013, formatted in XBRL (eXtensible Business Reporting Language)).

Attached as Exhibit 101.0 to this Quarterly Report on Form 10-Q are the following documents formatted in XBRL: (i) the Consolidated Balance Sheets at September 30, 2013 and December 31, 2012, (ii) the Consolidated Statements of Operations for the three and nine months ended September 30, 2013 and 2012, (iii) the Consolidated Statements of Comprehensive Income (Loss) for the three and nine months ended September 30, 2013 and 2012, (iv) the Consolidated Statements of Shareholders and Total Equity (Deficit) for the nine months ended September 30, 2013, (v) the Consolidated Statements of Cash Flows for the nine months ended September 30, 2013 and 2012 and (vi) the Notes to Consolidated Financial Statements. Users of this data are advised pursuant to Rule 406T of Regulation S-T that this interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of sections 11 or 12 of the Securities Act of 1933, is deemed not filed for purposes of section 18 of the Securities and Exchange Act of 1934, and otherwise is not subject to liability under these sections.

* Furnished herewith.

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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.

Intrexon Corporation
(Registrant)

Date: November 7, 2013

By: /s/ Rick L. Sterling
Rick L. Sterling
Chief Financial Officer
(principal financial and accounting officer)