ARROWHEAD PHARMACEUTICALS, INC. Form S-3ASR November 29, 2018 Table of Contents

As filed with the Securities and Exchange Commission on November 29, 2018

Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-3

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

Arrowhead Pharmaceuticals, Inc.

(Exact name of Registrant as Specified in Its Charter)

Delaware (State or other jurisdiction of incorporation or organization) 46-0408024 (I.R.S. Employer Identification Number)

225 S. Lake Avenue, Suite 1050

Pasadena, California 91101

(626) 304-3400

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Christopher Anzalone, Chief Executive Officer

Arrowhead Pharmaceuticals, Inc.

225 South Lake Avenue, Suite 1050

Pasadena, CA 91101

(626) 304-3400

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Ryan A. Murr Gibson, Dunn & Crutcher LLP 555 Mission St., Suite 3000 San Francisco, CA 94105-0921 Telephone: (415) 393-8200 Facsimile: (415) 393-8306

Approximate date of commencement of proposed sale to the public: From time to time after this Registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

Large accelerated filerAccelerated filerNon-accelerated filerSmaller reporting company
Emerging growth companyIf an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition
period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B)
of Securities Act

CALCULATION OF REGISTRATION FEE

		Proposed Maximum	Proposed Maximum	Amount of
Title of Each Class of Securities To	Amount to Be	Offering Price Per	Aggregate Offering	Registration
Be Registered	Registered (1)	Unit	Price	Fee
Common Stock, par value \$0.001	3,260,869	\$12.89 ⁽²⁾	\$42,032,601	\$5,094.35

- (1) Pursuant to Rule 416 of the Securities Act of 1933, as amended (the Securities Act), this Registration Statement also covers such additional securities as may become issuable to prevent dilution resulting from stock splits, stock dividends and similar events.
- (2) Pursuant to Rule 457(c), calculated on the basis of the average of the high and low trading prices of the Registrant s Common Stock reported on the Nasdaq Stock Market on November 23, 2018.

Prospectus

Arrowhead Pharmaceuticals, Inc.

3,260,869 shares of Common Stock

This prospectus covers the sale of an aggregate of 3,260,869 shares of our Common Stock, 0.001 par value per share (the Shares), by the selling stockholder identified in this prospectus (collectively with any of the holder s transferees, pledgees, donees or successors, the Selling Stockholder) issued on October 30, 2018 to the Selling Stockholder in a private offering exempt from registration under Section 4(a)(2) of the Securities Act, as amended (the Securities Act).

The Company will not receive any proceeds from the sale by the Selling Stockholder of the Shares. We are paying the cost of registering the Shares covered by this prospectus as well as various related expenses. The Selling Stockholder is responsible for all selling commissions, transfer taxes and other costs related to the offer and sale of its shares.

Sales of the Shares by the Selling Stockholder may occur at fixed prices, at market prices prevailing at the time of sale, at prices related to prevailing market prices, or at negotiated prices. The Selling Stockholder may sell shares to or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions from the Selling Stockholder, the purchasers of the shares, or both. If required, the number of shares to be sold, the public offering price of those shares, the names of any underwriters, broker-dealers or agents and any applicable commission or discount will be included in a supplement to this prospectus, called a prospectus supplement.

The Company s Common Stock is traded on The Nasdaq Global Select Market under the symbol ARWR. On November 28, 2018, the closing sale price of our Common Stock on The Nasdaq Global Select Market was \$14.80 per share. Our principal executive offices are located at 225 South Lake Avenue, Suite 1050, Pasadena, California 91101, and our telephone number is (626) 304-3400.

Investing in our securities involves a high degree of risk. You should carefully consider the <u>Risk Factors</u> discussed on page 5 before you invest in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 29, 2018

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ABOUT THIS PROSPECTUS

You should read this prospectus, any applicable prospectus supplement and the information incorporated by reference in this prospectus before making an investment in the securities of Arrowhead Pharmaceuticals, Inc. See Where You Can Find More Information for more information. You should rely only on the information contained in or incorporated by reference in this prospectus or a prospectus supplement. The Company has not authorized anyone to provide you with different information. This document may be used only in jurisdictions where offers and sales of these securities are permitted. You should assume that information contained in this prospectus, or in any document incorporated by reference, is accurate only as of any date on the front cover of the applicable document. Our business, financial condition, results of operations and prospects may have changed since that date.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus (including the documents incorporated by reference herein) contains certain forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this prospectus or any document incorporated by reference herein, except for historical information, may be deemed to be forward-looking statements. Without limiting the generality of the foregoing, words such as may, will, expect, believe, anticipate, intend, could, estimate, or continue or the negative or other variations thereof or comparable terminology are intend to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.

The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to predict accurately and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1 (Business) and Item 1A (Risk Factors) of Part I and Item 7 (Management s Discussion and Analysis of Financial Condition and Results of Operations) of Part II of our most recent Annual Report on Form 10-K and in subsequent Quarterly Reports on Form 10-Q, factors described under the section captioned Risk Factors in this prospectus, as may be updated from time to time by our future filings under the Securities Exchange Act, and elsewhere in the documents incorporated by reference in this prospectus. Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to place undue reliance on such forward-looking information. Except as may be required by law, we disclaim any intent to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

ABOUT THE COMPANY

Unless otherwise noted, (1) the term Arrowhead refers to Arrowhead Pharmaceuticals, Inc., a Delaware corporation and its Subsidiaries, (2) the terms Company, we, us, and our, refer to the ongoing business operations of Arrowhead and its Subsidiaries, whether conducted through Arrowhead or a subsidiary of Arrowhead, (3) the term Subsidiaries refers collectively to Arrowhead Madison Inc. (Arrowhead Madison), Arrowhead Australia Pty Ltd (Arrowhead Australia) and Ablaris Therapeutics, Inc. (Ablaris), (4) the term Common Stock refers to Arrowhead s Common Stock, (5) the term Preferred Stock refers to Arrowhead s Preferred Stock

and (6) the term Stockholder(s) refers to the holders of Arrowhead Common Stock.

Arrowhead Pharmaceuticals, Inc. develops medicines that treat intractable diseases by silencing the genes that cause them. Using a broad portfolio of RNA chemistries and efficient modes of delivery, Arrowhead therapies trigger the RNA interference mechanism to induce rapid, deep and durable knockdown of target genes. RNA interference, or RNAi, is a mechanism present in living cells that inhibits the expression of a specific gene, thereby affecting the production of a specific protein. Deemed to be one of the most important recent discoveries in life science with the potential to transform medicine, the discoverers of RNAi were awarded a Nobel Prize in 2006 for their work. Arrowhead s RNAi-based therapeutics leverage this natural pathway of gene silencing.

The company s pipeline includes ARO-AAT for liver disease associated with alpha-1 antitrypsin deficiency (AATD), ARO-APOC3 for hypertriglyceridemia, ARO-ANG3 for dyslipidemia, ARO-ENaC for cystic fibrosis, and ARO-HIF2 for renal cell

carcinoma. ARO-LPA (AMG 890) for cardiovascular disease was out-licensed to Amgen, Inc. in 2016. ARO-AMG1 for an undisclosed genetically validated cardiovascular target is under a license and collaboration agreement with Amgen, Inc. ARO-HBV for chronic hepatitis B virus was out-licensed to Janssen Pharmaceuticals, Inc. in October 2018.

Our executive offices are located at 225 South Lake Avenue, Suite 1050, Pasadena CA 91101 and our telephone number is (626) 304-3400. Additional information regarding our company, including our audited financial statements and descriptions of our business, is contained in the documents incorporated by reference in this prospectus. See Where You Can Find More Information and Incorporation of Certain Information by Reference.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described in the sections entitled Risk Factors in our most recent Annual Report on Form 10-K and subsequent Quarterly Reports on form 10-Q, as filed with the SEC, which are incorporated herein by reference in their entirety, as well any amendment or updates to our risk factors reflected in subsequent filings with the SEC, including the applicable prospectus supplement. Our business, financial condition or results of operations could be materially adversely affected by any of these risks. The trading price of our securities could decline due to any of these risks, and you may lose all or part of your investment. This prospectus and the incorporated documents also contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks mentioned elsewhere in this prospectus. For more information, see the section entitled Where You Can Find More Information.

USE OF PROCEEDS

The proceeds from the resale of the Shares under this prospectus are solely for the account of the Selling Stockholder. We will not receive any proceeds from the sale of Shares under this prospectus.

SELLING STOCKHOLDER

The Company has included in this prospectus 3,260,869 shares of Common Stock (the Shares), which were originally issued on October 30, 2018 pursuant to a Stock Purchase Agreement (the Stock Purchase Agreement) dated October 4, 2018, by and between the Company and Johnson & Johnson Innovation-JJDC, Inc. (JJDC), a New Jersey corporation, at a price of \$23.00 per share. The Shares were sold in a private placement that is exempt from registration under Section 4(a)(2) of the Act. In connection with the transactions contemplated by the Stock Purchase Agreement, we agreed to file a registration statement with the Securities and Exchange Commission covering the resale of the Shares.

The following table sets forth certain information regarding the Selling Stockholder and the shares of Common Stock beneficially owned by it, which is based on information that is available to us as of the date of this prospectus. The Selling Stockholder may offer shares under this prospectus from time to time and may elect to sell none, some or all of the shares set forth next to its name. As a result, we cannot estimate the number of shares of Common Stock that the Selling Stockholder will beneficially own after termination of sales under this prospectus. In addition, the Selling Stockholder may have sold, transferred or otherwise disposed of all or a portion of that holder s shares of Common Stock since the date on which it provided information for this table. We have not made independent inquiries about this.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock subject to options or warrants that are currently exercisable or exercisable within 60 days from the date of this prospectus are considered outstanding and beneficially owned by the person holding the options or warrants for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person.

We are relying on written commitments from the Selling Stockholder to notify us of any changes in its beneficial ownership after the date it originally provided this information.

	# of			
	Shares			
	held		# of Shares	Percentage of
	before	# Shares Being	held after	Shares
Selling stockholder(1)	Offering	Offered	Offering(2)	After Offering(2)
Johnson & Johnson Innovation-JJDC, Inc.	3,260,869	3,260,869	0	0%

- (1) If required, information about other selling stockholders, except for any future transferees, pledgees, donees or successors of the selling stockholder named in the table above, will be set forth in a prospectus supplement or amendment to the registration statement of which this prospectus is a part. Additionally, post-effective amendments to the registration statement will be filed to disclose any material changes to the plan of distribution from the description contained in the final prospectus.
- (2) Assumes all shares offered by the Selling Stockholder hereby are sold and that the Selling Stockholder buys or sells no additional shares of Common Stock prior to the completion of this offering.

PLAN OF DISTRIBUTION

The Selling Stockholder and any of their pledgees, donees, transferees, assignees or other successors-in-interest may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. The Selling Stockholder may use one or more of the following methods when disposing of the shares or interests therein:

ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

through brokers, dealers or underwriters that may act solely as agents;

purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

an exchange distribution in accordance with the rules of the applicable exchange;

privately negotiated transactions;

through the writing or settlement of options or other hedging transactions entered into after the effective date of the registration statement of which this prospectus is a part, whether through an options exchange or otherwise;

broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;

a combination of any such methods of disposition; and

any other method permitted pursuant to applicable law. The Selling Stockholder may also sell shares under Rule 144 under the Securities Act of 1933, as amended, or Securities Act, if available, rather than under this prospectus.

Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the Selling Stockholder (or, if any broker-dealer acts as

agent for the purchaser of shares, from the purchaser) in amounts to be negotiated. The Selling Stockholder does not expect these commissions and discounts to exceed what is customary in the types of transactions involved.

The Selling Stockholder may from time to time pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock from time to time under this prospectus, or under a supplement or amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

Upon being notified in writing by the Selling Stockholder that any material arrangement has been entered into with a broker-dealer for the sale of common stock through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, we will file a supplement to this prospectus, if required, pursuant to Rule 424(b) under the Securities Act, disclosing (i) the name of each such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares of common stock were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus, and (vi) other facts material to the transaction. In addition, upon being notified in writing by a selling stockholder that a donee or pledge intends to sell more than 500 shares of common stock, we will file a supplement to this prospectus if then required in accordance with applicable securities law.

The Selling Stockholder also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the sale of the shares of common stock or interests in shares of common stock, the Selling Stockholder may enter into hedging transactions after the effective date of the registration statement of which this prospectus is a part with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The Selling Stockholder may also sell shares of common stock short after the effective date of the registration statement of which this prospectus is a part and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The Selling Stockholder may also enter into option or other transactions after the effective date of the registration statement of which this prospectus is a part with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The Selling Stockholder and any broker-dealers or agents that are involved in selling the shares may be deemed to be underwriters within the meaning of the Securities Act in connection with such sales. In such event, any commissions received by such broker-dealers or agents and any profit on the resale of the shares purchased by them may be deemed to be underwriting commissions or discounts under the Securities Act and the rules of the Financial Industry Regulatory Authority (FINRA).

We have advised the Selling Stockholder that they are required to comply with Regulation M promulgated under the Securities Exchange Act of 1934, as amended, during such time as they may be engaged in a distribution of the shares. The foregoing may affect the marketability of the common stock.

The aggregate proceeds to the Selling Stockholder from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. The Selling Stockholder reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

We are required to pay all fees and expenses incident to the registration of the shares. We have agreed to indemnify the Selling Stockholder against certain losses, claims, damages and liabilities, including liabilities under the Securities Act or otherwise.

We have agreed with the Selling Stockholder to keep the registration statement of which this prospectus constitutes a part effective until the earlier of (a) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with the registration statement or (b) the date on which the shares of common stock covered by this prospectus may be sold or transferred by non-affiliates without any volume limitations or pursuant to Rule 144 of the Securities Act.

EXPERTS

The financial statements of the Company incorporated in this prospectus by reference from the Company s Annual Report on Form 10-K for the year ended September 30, 2017 have been audited by Rose, Snyder & Jacobs, LLP as stated in their report incorporated by reference, and given upon the authority of said firm as experts in auditing and accounting.

LEGAL MATTERS

Certain legal matters, including the validity of the securities offered pursuant to this registration statement, will be passed upon for us by Gibson, Dunn & Crutcher LLP, San Francisco, California.

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WHERE YOU CAN FIND MORE INFORMATION

We must comply with the informational requirements of the Securities Exchange Act of 1934, as amended, and we are required to file reports and proxy statements and other information with the Securities and Exchange Commission. You may read and copy these reports, proxy statements and other information at the Public Reference Room maintained by the Securities and Exchange Commission at 100 F Street, N.E., Washington, D.C. 20549. You may also obtain copies at the prescribed rates from the Public Reference Section of the Securities and Exchange Commission at its principal office in Washington, D.C. You may call the Securities and Exchange Commission at 1-800-SEC-0330 for further information about the public reference room. The Securities and Exchange Commission also maintains a website that contains reports, proxy and information statements and other information regarding issuers like us that file electronically with the Securities and Exchange Commission. You may access the Securities and Exchange Commission s web site at http://www.sec.gov. We maintain a website at www.arrowheadpharma.com. The information contained in, or that can be accessed through, our website is not incorporated by reference herein and is not part of this prospectus.

Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete, and in each instance we refer you to the copy of the contract or document filed as an exhibit to the registration statement, each such statement being qualified in all respects by such reference.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The Securities and Exchange Commission allows us to incorporate by reference in this prospectus the information that we file with it. Incorporation by reference means that we can disclose important information to you by referring you to other documents that are legally considered to be part of this prospectus. Later information that we file with the Securities and Exchange Commission will automatically update and supersede the information in this prospectus, any supplement and the documents listed below. Our SEC file number is 0-21898. We incorporate by reference the specific documents listed below and any future filings made with the Securities and Exchange Commission under Section 13(a), 13(c), 14, or 15(d) of the Securities Exchange Act of 1934, as amended, until all of the shares of common stock and warrant shares covered by this prospectus are sold:

The Company s Annual Report on Form 10-K for the fiscal year ended September 30, 2017, filed on December 12, 2017;

The Company s Quarterly Reports on Form 10-Q for the fiscal quarters ended December 31, 2017, March 31, 2018, June 30, 2018;

The Company s Definitive Proxy Statement on Schedule 14A, filed on January 25, 2018;

The Company s Current Report on Form 8-K filed on December 27, 2017, January 22, 2018, March 20, 2018, October 4, 2018 to the extent filed and not furnished ;

The description of the Company s Common Stock contained in its registration statement on Form 8-A/A (Registration No. 000-21898), filed on November 1, 2010, including any amendments or reports filed for the purpose of updating such description; and

All documents filed by the Company pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act, after the date of the original Registration Statement and prior to effectiveness of the registration statement of which this prospectus is a part, provided that all documents furnished by the Company to the SEC and not filed are not deemed incorporated by reference herein.

In addition, all documents subsequently filed by the registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act (prior to the filing of a post-effective amendment which indicates that all securities offered hereby have been sold or which deregisters all securities then remaining unsold) are incorporated herein by reference, *provided*, *however*, that documents or information deemed to have been furnished and not filed in accordance with the rules and regulations of the SEC shall not be deemed to be incorporated by reference herein into this Registration Statement.

We will furnish without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon written or oral request, a copy of any document incorporated by reference. Requests should be addressed to Corporate Secretary, 225 South Lake Street, Suite 1050, Pasadena, California 91101 or may be made telephonically at (626) 304-3400.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. You should not assume that the information contained in this prospectus or the accompanying prospectus supplement is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses, other than underwriting discounts and commissions, payable by us in connection with the sale of the securities being registered hereby. All amounts, except the SEC registration fee, are estimates:

Registration Fee Securities and Exchange Commission	\$ 5,094
Accountants Fees and Expenses	10,000
Legal Fees and Expenses	10,000
Miscellaneous	\$ 4,906
Total	\$ 30,000

Item 15. Indemnification of Directors and Officers.

The Company s Certificate of Incorporation provides for the elimination of personal monetary liability of directors to the fullest extent permissible under Delaware law. Delaware law does not permit the elimination or limitation of director monetary liability for: (i) breaches of the director s duty of loyalty to the corporation or its stockholders; (ii) acts or omissions not in good faith or involving intentional misconduct or knowing violations of law; (iii) the payment of unlawful dividends or unlawful stock repurchases or redemptions or (iv) transactions in which the director received an improper personal benefit.

Section 145 of the Delaware General Corporation Law permits a Delaware corporation to indemnify, on certain terms and conditions, any person who was or is a party or is threatened to be made a party to any threatened pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director, officer, employee or agent of the corporation or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action. The Certificate of Incorporation and Bylaws of the Company require the Company to indemnify the Company s directors and officers to the fullest extent permitted under Delaware law.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Company pursuant to the foregoing provisions, the Company has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

Item 16. Exhibit Index.

A list of exhibits filed with this registration statement on Form S-3 is set forth on the Exhibit Index and is incorporated herein by reference.

Item 17. Undertakings.

Item 512(a) of Regulation S-K. The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

- (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;
- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the Calculation of Registration Fee table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

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Provided, however, That:

Paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in this registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. *Provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the

securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser. *Item 512(b) of Regulation S-K.* The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant s annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended (and, where applicable, each filing of an employee benefit plan s annual report pursuant to Section 15(d) of the Securities Exchange Act of 15(d) of the Securities Exchange Act of 1934, as amended (and, where applicable, each filing of an employee benefit plan s annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Item 512(h) of Regulation S-K. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act, and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of

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any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

Item 512(i) of Regulation S-K. The undersigned registrant hereby undertakes that:

(i) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(ii) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

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EXHIBIT INDEX

Exhibit

No.	Description
3.1	Amended and Restated Certificate of Incorporation of Arrowhead Pharmaceuticals, Inc., a Delaware corporation, filed with the Secretary of State of the State of Delaware on April 5, 2016 (incorporated by reference to Exhibit 3.3 to the Company s Current Report on Form 8-K filed April 6, 2016)
3.2	Amended and Restated Bylaws of Arrowhead Pharmaceuticals, Inc. (incorporated by reference to Exhibit 3.4 to the Company s Current Report on Form 8-K filed April 6, 2016)
4.1	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company s Current Report on Form 8-K filed April 6, 2016)
5.1	Opinion of Gibson, Dunn & Crutcher LLP **
23.1	Consent of Rose, Snyder & Jacobs, the registrant s independent registered public accounting firm**
23.2	Consent of Gibson, Dunn & Crutcher LLP (included in legal opinion filed as Exhibit 5.1)
24.1	Power of Attorney (included on signature page)**
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** Filed herewith.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Pasadena, state of California, on November 29, 2018.

ARROWHEAD PHARMACEUTICALS, INC.

By: /s/ Christopher Anzalone Christopher Anzalone Chief Executive Officer

POWER OF ATTORNEY

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated, each of whom also constitutes and appoints Christopher Anzalone and Kenneth A. Myszkowski, and each of them singly, his or her true and lawful attorney-in-fact and agent, for him or her, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and to file the same and all exhibits thereto and any other documents in connection therewith with the Securities and Exchange Commission, granting unto each attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that each attorney-in-fact and agent or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Signature	Title	Date	
/s/ Christopher Anzalone	Chief Executive Officer and President and Director	November 29, 2018	
Christopher Anzalone	2010		
	Chief Financial Officer	November 29, 2018	
/s/ Kenneth A. Myszkowski	(Principal Financial Officer and Principal	2010	
Kenneth A. Myszkowski	Accounting Officer)		
/s/ Douglass Given	Director, Chairman of the Board of Directors	November 29, 2018	
Douglass Given			
/s/ Mauro Ferrari	Director	November 29, 2018	

Mauro Ferrari		
/s/ Michael S. Perry	Director	November 29, 2018
Michael S. Perry		2010
/s/ William Waddill	Director	November 29, 2018
William Waddill		2010
>		
\$ 0.92		
Net income \$ 0.63		
\$ 1.21		
\$ 1.31		
\$ 1.94		

Diluted earnings per weighted-average common and common-equivalent share:
Net income from continuing operations
\$
0.61

0.61

\$ 0.29

\$

Eugal Filling. ARROWNEAD PHARMAGEUTICALS, INC.
1.29
\$ 1.00
Net income (loss) from discontinued operations \$
\$
0.90
\$ (0.01)
\$ 0.90
Net income \$ 0.61
\$ 1.19
\$ 1.28
\$ 1.90

Weighted-average common and common-equivalent shares outstanding: Basic 85,460

86,303			
85,167			
86,756			
Diluted 87,346			
87,776			
86,805			
88,559			

Cash dividends per common share \$
0.075
\$
0.07
\$
0.22
\$
0.14

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

COGNEX CORPORATION CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (In thousands)

	October 2, 2016 (unaudit	2015 ed)	October 2, 2016 (unaudited	October 2015	·4,
Net income	\$53,675	\$104,112	\$111,319	\$168,32	28
Other comprehensive income (loss), net of tax: Cash flow hedges:					
Net unrealized gain (loss), net of tax of \$21 and (\$3) in the three-month					
periods and net of tax of (\$76) and (\$28) in the nine-month periods, respectively	(86) (140)	(965)	(423)
Reclassification of net realized (gain) loss into current operations	241	90	427	269	
Net change related to cash flow hedges	155	(50)	(538)	(154)
Available-for-sale investments: Net unrealized gain (loss), net of tax of (\$29) and (\$61) in the three-month periods and net of tax of \$481 and (\$55) in the nine-month periods, respectively Reclassification of net realized (gain) loss into current operations Net change related to available-for-sale investments) (19)	2,672 (183) 2,489	(100) (240 (340)))
Foreign currency translation adjustments: Foreign currency translation adjustments, net of tax of \$80 and \$4 in the					
three-month periods and net of tax of \$254 and (\$525) in the nine-month periods, respectively	1,125	620	3,739	(7,620)
Net change related to foreign currency translation adjustments	1,125	620	3,739	(7,620)
Other comprehensive income (loss), net of tax Total comprehensive income	1,265 \$54,940	· · · · · ·	5,690 \$117,009	(8,114 \$160,21) 4

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

COGNEX CORPORATION CONSOLIDATED BALANCE SHEETS (In thousands)

	October 2, 2016 (unaudited)	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	\$61,145	\$51,975
Short-term investments	328,378	296,468
Accounts receivable, less reserves of \$800 and \$736 in 2016 and 2015, respectively	82,068	42,846
Unbilled revenue	10,090	24
Inventories	27,226	37,334
Prepaid expenses and other current assets	21,921	15,847
Total current assets	530,828	444,494
Long-term investments	315,927	273,088
Property, plant, and equipment, net	55,730	53,285
Goodwill	82,831	81,448
Intangible assets, net	4,716	6,315
Deferred income taxes	27,529	26,517
Other assets	2,526	2,609
Total assets	\$1,020,087	\$887,756
LIABILITIES AND SHAREHOLDERS' EQUITY Current liabilities:		
	\$10,106	\$7,860
Accounts payable		
Accrued expenses Accrued income taxes	42,593 470	33,272 985
		985 11,571
Deferred revenue and customer deposits Total current liabilities	15,905 69,074	53,688
Deferred income taxes	346	-
		319
Reserve for income taxes Other non-current liabilities	5,104	4,830
	1,615	3,252 62,089
Total liabilities	76,139	02,089
Shareholders' equity:		
Common stock, \$.002 par value – Authorized: 200,000 and 140,000 shares in 2016 and 2015 respectively, issued and outstanding: 85,666 and 84,856 shares in 2016 and 2015, respectivel	, 171 v	170
Additional paid-in capital	349,981	311,008
Retained earnings	640,230	566,613
Accumulated other comprehensive loss, net of tax		(52,124)
Total shareholders' equity	943,948	825,667
	\$1,020,087	\$887,756
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The accompanying notes are an integral part of these consolidated financial statements.

COGNEX CORPORATION

COGNEX CORPORA CONSOLIDATED ST		ITS OF CASH	I FLOWS			
(In thousands)	Nine-months Ended October 2, 2016 (unaudited)			October 4, 2015		
Cash flows from operating activities: Net income	\$	111,319		\$	168,328	
Adjustments to reconcile net income to net cash provided by operating activities:	ý					
(Gain) loss on sale of discontinued business	255			(78,290)
Stock-based compensation expense Depreciation of	15,883			15,964		
property, plant, and equipment	8,551			7,223		
Amortization of intangible assets	2,581			3,203		
Amortization of discounts or premiums on investments				536		
Realized (gain) loss or sale of investments	¹ (733)	(240)
Revaluation of contingent consideration	(463)			
Change in deferred income taxes Change in operating	(1,415)	(2,134)
assets and liabilities: Accounts receivable	(37 802)	(31,380)
Unbilled revenue	(9,986)	(2,233)
Inventories	10,780			(11,363)
Accounts payable	2,089			(6,823)
Accrued expenses	7,560		、 、	(4,010)
Accrued income taxes Deferred revenue and	(531)	18,032		
customer deposits	4,071			6,035		
Other	(5,789)	1,147		
Net cash provided by operating activities Cash flows from	106,658			83,995		
investing activities: Purchases of investments	(598,955)	(547,553)

Maturities and sales of	f						
Investments				521,464			
Purchases of property,	, (10.401)	(13,017)	
plant, and equipment	(10,491)	(13,017)	
Cash paid for	(2,483)	(1,023)	
acquisition of business	S Č		,			,	
Cash paid for purchased technology				(10,475)	
Net cash received							
(paid) from sale of	(113)	104,496			
discontinued business							
Net cash provided by							
(used in) investing	(82,835)	53,892			
activities							
Cash flows from							
financing activities: Issuance of common							
stock under stock	23,091			27,440			
plans	20,071			27,110			
Repurchase of	(10.041		`	(10(251		`	
common stock	(18,941)	(126,351)	
Payment of dividends	(18,761)	(12,137)	
Payment of contingent	t (337)				
consideration	(,				
Net cash provided by	(14,948)	(111,048)	
(used in) financing activities	(14,940)	(111,040)	
Effect of foreign							
exchange rate changes	3 205			(2,070)		`	
on cash and cash	293			(2,970)	
equivalents							
Net change in cash and	^d 9.170			23,869			
cash equivalents	- ,			-)			
Cash and cash	51,975			55,694			
equivalents at beginning of period	51,975			55,094			
Cash and cash							
	\$	61,145		\$	79,563		
period							
Non-cash items related	b						
to discontinued							
operations:							
Stock-based compensation expense	\$			\$	1,533		
Depreciation and	;						
amortization expense				566			
Capital expenditures				482			
The accompanying notes are an integral part of these consolidated financial statements.							

COGNEX CORPORATION CONSOLIDATED STATEMENT OF SHAREHOLDERS' EQUITY (In thousands)

	Common Stock		Additional Detained		Accumulated		Total	
	Shares	Par Valu	Paid-in	Retained Earnings	Other Comprehens Loss	siv	e Equity	ers'
Balance as of December 31, 2015	84,856	\$ 170	\$311,008	\$566,613	\$ (52,124)	\$825,667	
Issuance of common stock under stock plans	1,224	1	23,090	_			23,091	
Repurchase of common stock	(414)			(18,941)			(18,941)
Stock-based compensation expense			15,883	_			15,883	
Payment of dividends			_	(18,761)			(18,761)
Net income			_	111,319			111,319	
Net unrealized gain (loss) on cash flow hedges, net of tax of (\$76)	—			—	(965)	(965)
Reclassification of net realized (gain) loss on cash flow hedges	_				427		427	
Net unrealized gain (loss) on available-for-sale investments, net of tax of \$481	—				2,672		2,672	
Reclassification of net realized (gain) loss on the sale of available-for-sale investments	—				(183)	(183)
Foreign currency translation adjustment, net of tax of \$254			—	—	3,739		3,739	
Balance as of October 2, 2016 (unaudited)	85,666	\$ 171	\$349,981	\$640,230	\$ (46,434)	\$ 943,948	

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

COGNEX CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1: Summary of Significant Accounting Policies

As permitted by the rules of the Securities and Exchange Commission applicable to Quarterly Reports on Form 10-Q, these notes are condensed and do not contain all disclosures required by generally accepted accounting principles (GAAP). The Company has provided expanded disclosures related to its revenue recognition accounting policy in this quarterly report on Form 10-Q. Reference should be made to the consolidated financial statements and related notes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2015 for a full description of significant accounting policies.

In the opinion of the management of Cognex Corporation (the "Company"), the accompanying consolidated unaudited financial statements contain all adjustments, consisting of normal, recurring adjustments and financial statement reclassifications, including those related to the disposition of a business (more fully described in Note 14), necessary to present fairly the Company's financial position as of October 2, 2016, and the results of its operations for the three-month and nine-month periods ended October 2, 2016 and October 4, 2015, and changes in shareholders' equity, comprehensive income, and cash flows for the periods presented.

The results disclosed in the Consolidated Statements of Operations for the three-month and nine-month periods ended October 2, 2016 are not necessarily indicative of the results to be expected for the full year.

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD). The financial results of SISD are reported as a discontinued operation for all periods presented.

Revenue Recognition

In order to recognize revenue, the Company requires that a signed customer contract or purchase order is received, the fee from the arrangement is fixed or determinable, and the collection of the resulting receivable is probable. Assuming that these criteria have been met, product revenue is generally recognized upon delivery, revenue from maintenance and support programs is recognized ratably over the program period, and revenue from consulting and training services is recognized when the services have been provided. When customer-specified acceptance criteria exists that are substantive, product revenue is deferred, along with associated incremental direct costs, until these criteria have been met and any remaining performance obligations are inconsequential or perfunctory.

For the majority of the Company's revenue transactions, revenue recognition and invoicing both occur upon delivery. In certain circumstances, however, the agreement with the customer provides for invoicing terms which differ from revenue recognition criteria, resulting in either deferred revenue or unbilled revenue. Invoicing that precedes revenue recognition is common for various customers in the logistics industry where milestone billings are prevalent, resulting in deferred revenue. Conversely, the Company records unbilled revenue in connection with a material customer in the consumer electronics industry. For this arrangement, the Company recognizes revenue for all delivered products when the first production line that incorporates these products is validated, because at that point the remaining performance obligations are inconsequential or perfunctory. Invoicing for all delivered products occurs as the production lines incorporating those products are installed over a period of several weeks. The Company also has a technical support obligation related to this arrangement for which revenue is deferred and recognized over the support period of approximately six months.

Certain customers are offered pricing discounts on current sales based upon purchasing volumes or preferred pricing arrangements, for which revenue is reported net of these discounts.

NOTE 2: New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase

in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, and in May

2016, ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients" was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods. Management will continue to evaluate the impact of this standard as it evolves.

Accounting Standards Update (ASU) 2015-11, "Inventory - Simplifying the Measurement of Inventory"

ASU 2015-11 requires companies to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which a company must measure inventory at the lower of cost or market. This ASU eliminates the need to determine replacement cost and evaluate whether said cost is within a quantitative range. This ASU also further aligns U.S. GAAP and international accounting standards. For public companies, the guidance in ASU 2015-11 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. Management does not expect ASU 2015-11 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-05, "Derivatives and Hedging - Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships"

ASU 2016-05 applies to all reporting entities for which there is a change in the counterparty to a derivative instrument that has been designated as the hedging instrument. The amendments in this Update clarify that a change in the counterparty does not, in and of itself, require de-designation of that hedging relationship provided that all other hedge accounting criteria continue to be met. For public companies, the guidance in ASU 2016-05 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. This ASU should be applied on either a prospective basis or a modified retrospective basis. Management does not expect ASU 2016-05 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses"

ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that

credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

NOTE 3: Fair Value Measurements

Financial Assets and Liabilities that are Measured at Fair Value on a Recurring Basis

The following table summarizes the financial assets and liabilities required to be measured at fair value on a recurring basis as of October 2, 2016 (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)		Significant Other Observable Inputs (Level 2)	Unobservable Inputs (Level 3)
Assets:				
Money market instruments	\$	6,354	\$ —	-\$ —
Corporate bonds			297,779	—
Treasury bills			107,307	—
Asset-backed securities			103,522	—
Sovereign bonds			53,104	
Euro liquidity fund			49,586	_
Agency bonds			23,552	_
Municipal bonds			9,455	_
Cash flow hedge forward contracts			82	
Economic hedge forward contracts			75	_
Liabilities:				
Cash flow hedge forward contracts			460	_
Economic hedge forward contracts			33	_
Contingent consideration liability			_	2,200

The Company's money market instruments are reported at fair value based upon the daily market price for identical assets in active markets, and are therefore classified as Level 1.

The Company's debt securities and forward contracts are reported at fair value based upon model-driven valuations in which all significant inputs are observable or can be derived from or corroborated by observable market data for substantially the full term of the asset or liability, and are therefore classified as Level 2. Management is responsible for estimating the fair value of these financial assets and liabilities, and in doing so, considers valuations provided by a large, third-party pricing service. For debt securities, this service maintains regular contact with market makers, brokers, dealers, and analysts to gather information on market movement, direction, trends, and other specific data. They use this information to structure yield curves for various types of debt securities and arrive at the daily valuations. The Company's forward contracts are typically traded or executed in over-the-counter markets with a high degree of pricing transparency. The market participants are generally large commercial banks.

The Company did not record an other-than-temporary impairment of these financial assets during the nine-month period ended October 2, 2016.

The Company's contingent consideration liability, related to the acquisition of Manatee Works, Inc. in 2015, is reported at fair value based upon probability-adjusted present values of the consideration expected to be transferred using significant inputs that are not observable in the market, and is therefore classified as Level 3. Key assumptions used in these estimates include probability assessments with respect to the likelihood of achieving the revenue milestones and discount rates consistent with the level of risk of achievement. The contingent consideration is remeasured each reporting period with changes in fair value recorded in "Other income (expense)" on the

Consolidated Statements of Operations.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table summarizes the activity for the Company's liability measured at fair value using Level 3 inputs for the nine-month period ended October 2, 2016 (in thousands):

Balance as of December 31, 2015	\$3,00	0
Payment of contingent consideration	(337)
Fair value adjustment to the contingent consideration	(463)

Balance as of October 2, 2016 \$2,200

Financial Assets that are Measured at Fair Value on a Non-recurring Basis

The Company has an interest in a limited partnership, which is accounted for using the cost method. During the third quarter of 2016, the Company received a distribution from the Partnership that was accounted for as a return of capital and reduced the carrying value of this investment to zero. Accordingly, the Company is no longer required to measure this investment at fair value on a non-recurring basis.

Non-financial Assets that are Measured at Fair Value on a Non-recurring Basis

Non-financial assets such as property, plant and equipment, goodwill, and intangible assets are required to be measured at fair value only when an impairment loss is recognized. The Company did not record an impairment charge related to these assets during the nine-month period ended October 2, 2016.

NOTE 4: Cash, Cash Equivalents, and Investments

Cash, cash equivalents, and investments consisted of the following (in thousands):

	October	December
	2, 2016	31, 2015
Cash	\$54,791	\$45,951
Money market instruments	6,354	6,024
Cash and cash equivalents	61,145	51,975
Corporate bonds	134,245	54,376
Asset-backed securities	64,740	61,994
Euro liquidity fund	49,586	47,730
Treasury bills	36,728	109,360
Sovereign bonds	28,720	21,440
Municipal bonds	9,455	590
Agency bonds	4,904	978
Short-term investments	328,378	296,468
Corporate bonds	163,534	176,575
Treasury bills	70,579	44,437
Asset-backed securities	38,782	24,582
Sovereign bonds	24,384	13,503
Agency bonds	18,648	8,180
Municipal bonds		4,869
Limited partnership interest (accounted for using cost method)		942
Long-term investments	315,927	273,088
-	\$705,450	\$621,531

Corporate bonds consist of debt securities issued by both domestic and foreign companies; asset-backed securities consist of debt securities collateralized by pools of receivables or loans with credit enhancement; the Euro liquidity fund invests in a portfolio of investment-grade bonds; treasury bills consist of debt securities issued by the U.S. government; sovereign bonds consist of direct debt issued by foreign governments; municipal bonds consist of debt securities issued by state and local government entities; and agency bonds consist of domestic or foreign obligations of government agencies and government sponsored enterprises that have government backing. The Euro liquidity fund is denominated in Euros, and the remaining securities are denominated in U.S. Dollars.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table summarizes the Company's available-for-sale investments as of October 2, 2016 (in thousands):

	Amortized	Gross	Gross	
	Cost	Unrealized	Unrealized	l Fair Value
	COSt	Gains	Losses	
Short-term:				
Corporate bonds	\$134,232	\$ 56	\$ (43)	\$134,245
Asset-backed securities	64,696	49	(5)	64,740
Euro liquidity fund	49,256	330		49,586
Treasury bills	36,704	27	(3)	36,728
Sovereign bonds	28,719	5	(4)	28,720
Municipal bonds	9,443	12		9,455
Agency bonds	4,900	4		4,904
Long-term:				
Corporate bonds	162,826	773	(65)	163,534
Treasury bills	70,535	60	(16)	70,579
Asset-backed securities	38,716	72	(6)	38,782
Sovereign bonds	24,362	31	(9)	24,384
Agency bonds	18,610	38		18,648
	\$642,999	\$ 1,457	\$ (151)	\$644,305

The following table summarizes the Company's gross unrealized losses and fair values for available-for-sale investments in an unrealized loss position as of October 2, 2016 (in thousands):

Unrealized Loss Position For:

	Less than	12 Month	s	12 Mont Greater	hs or		Total		
	Fair Value	Unrealize Losses	ed	Fair Valu	Unrealize	d	Fair Value	Unrealiz Losses	zed
Corporate bonds	\$55,613	\$ (50)	\$24,991	\$ (58)	\$80,604	\$ (108)
Treasury bills	44,714	(19)				44,714	(19)
Asset-backed securities	7,074	(2)	13,580	(9)	20,654	(11)
Sovereign bonds	16,414	(11)	3,398	(2)	19,812	(13)
	\$123,815	\$ (82)	\$41,969	\$ (69)	\$165,784	\$ (151)

As of October 2, 2016, the Company did not recognize any other-than-temporary impairment of these investments. In its evaluation, management considered the type of security, the credit rating of the security, the length of time the security has been in a loss position, the size of the loss position, the Company's intent and ability to hold the security to expected recovery of value, and other meaningful information. The Company does not intend to sell, and is unlikely to be required to sell, any of these available-for-sale investments before its effective maturity or market price recovery.

The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$55,000 and \$0, respectively, during the three-month period ended October 2, 2016 and \$26,000 and \$7,000, respectively, during the three-month period ended October 4, 2015. The Company recorded gross realized gains and gross realized losses on the sale of debt securities totaling \$280,000 and \$97,000, respectively, during the nine-month period ended October 2, 2016 and \$434,000 and \$194,000, respectively, during the nine-month period ended October 4, 2015. These gains and losses are included in "Investment income" on the Consolidated Statement of Operations. Prior to the sale of these securities, unrealized gains and losses for these debt securities, net of tax, are recorded in shareholders' equity as other comprehensive income (loss).

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table presents the effective maturity dates of the Company's available-for-sale investments as of October 2, 2016 (in thousands):

	<1 year	1-2 Years	2-3 Years	3-4 Years	4-5 Years	Total
Corporate bonds	\$134,245	\$71,977	\$84,825	\$2,212	\$4,520	\$297,779
Asset-backed securities	64,740	20,212	8,722	9,689	159	103,522
Treasury bills	36,728	70,579				107,307
Sovereign bonds	28,720	19,749	4,635			53,104
Euro liquidity fund	49,586					49,586
Agency bonds	4,904	15,930	2,718			23,552
Municipal bonds	9,455			_		9,455
	\$328,378	\$198,447	\$100,900	\$11,901	\$4,679	\$644,305

The Company is a Limited Partner in Venrock Associates III, L.P. (Venrock), a venture capital fund. The Company has committed to a total investment in the limited partnership of up to \$20,500,000, with an expiration date of December 31, 2017. The Company does not have the right to withdraw from the partnership prior to this date. As of October 2, 2016, the Company contributed \$19,886,000 to the partnership. The remaining commitment of \$614,000 can be called by Venrock at any time before December 31, 2017. Contributions and distributions are at the discretion of Venrock's management. No contributions were made during the nine-month period ended October 2, 2016. The Company received a cash distribution of \$1,492,000 during the third quarter of 2016, of which \$942,000 was accounted for as a return of capital, reducing the carrying value of this investment to zero, with the remaining \$550,000 recorded as investment income.

NOTE 5: Inventories

Inventories consisted of the following (in thousands):

	October	December
	2, 2016	31, 2015
Raw materials	\$19,427	\$27,301
Work-in-process	2,293	3,136
Finished goods	5,506	6,897
	\$27,226	\$ 37,334
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NOTE 6: Warranty Obligations

The Company records the estimated cost of fulfilling product warranties at the time of sale based upon historical costs to fulfill claims. Obligations may also be recorded subsequent to the time of sale whenever specific events or circumstances impacting product quality become known that would not have been taken into account using historical data. While we engage in extensive product quality programs and processes, including actively monitoring and evaluating the quality of our component suppliers and third-party contract manufacturers, the Company's warranty obligation is affected by product failure rates, material usage, and service delivery costs incurred in correcting a product failure. An adverse change in any of these factors may result in the need for additional warranty provisions. Warranty obligations are included in "Accrued expenses" on the Consolidated Balance Sheets. The changes in the warranty obligation were as follows (in thousands):

The changes in the warranty obligation were as fol	lows (in tho
Balance as of December 31, 2015	\$4,174
Provisions for warranties issued during the period	2,292
Fulfillment of warranty obligations	(2,056)
Foreign exchange rate changes	134
Balance as of October 2, 2016	\$4,544
NOTE 7: Contingencies	

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 8: Indemnification Provisions

Except as limited by Massachusetts law, the by-laws of the Company require it to indemnify certain current or former directors, officers, and employees of the Company against expenses incurred by them in connection with each proceeding in which he or she is involved as a result of serving or having served in certain capacities. Indemnification is not available with respect to a proceeding as to which it has been adjudicated that the person did not act in good faith in the reasonable belief that the action was in the best interests of the Company. The maximum potential amount of future payments the Company could be required to make under these provisions is unlimited. The Company has never incurred significant costs related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

In the ordinary course of business, the Company may accept standard limited indemnification provisions in connection with the sale of its products, whereby it indemnifies its customers for certain direct damages incurred in connection with third-party patent or other intellectual property infringement claims with respect to the use of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally subject to fixed monetary limits. The Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the Company believes the estimated fair value of these provisions is not material.

In the ordinary course of business, the Company also accepts limited indemnification provisions from time to time, whereby it indemnifies customers for certain direct damages incurred in connection with bodily injury and property damage arising from the installation of the Company's products. The maximum potential amount of future payments the Company could be required to make under these provisions is generally limited and is likely recoverable under the Company's insurance policies. As a result of this coverage, and the fact that the Company has never incurred significant costs to defend lawsuits or settle claims related to these indemnification provisions, the Company believes the estimated fair value of these provisions is not material.

Under the terms of the Company's sale of its Surface Inspection Systems Division (SISD) to AMETEK, Inc., the Company has agreed to retain certain liabilities in connection with its business dealings occurring prior to the transaction closing date of July 6, 2015, and to indemnify AMETEK, Inc. in connection with these retained liabilities and for any breach of the representations and warranties made by the Company to AMETEK, Inc. in connection with the sale agreement itself, as is usual and customary in such transactions. A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016.

NOTE 9: Derivative Instruments

The Company's foreign currency risk management strategy is principally designed to mitigate the potential financial impact of changes in the value of transactions and balances denominated in foreign currencies resulting from changes in foreign currency exchange rates. Currently, the Company enters into two types of hedges to manage this risk. The first are economic hedges which utilize foreign currency forward contracts with maturities of up to 45 days to manage the exposure to fluctuations in foreign currency exchange rates arising primarily from foreign-denominated receivables and payables. The gains and losses on these derivatives are intended to be offset by the changes in the fair value of the assets and liabilities being hedged. These economic hedges are not designated as hedging instruments for hedge accounting treatment. The second are cash flow hedges which utilize foreign currency exchange rate company's foreign subsidiaries with the goal of protecting our budgeted revenues and expenses against foreign currency exchange rate changes compared to our budgeted rates. These cash flow hedges are designated as hedging instruments.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The Company had the following outstanding forward contracts (in thousands):

Currency	0 0	October 2, Notional Value		December Notional t Value		
Derivatives Designated as He	edging Instruments:		•			
United States Dollar	0 0	5,225	\$ 5,225	16,720	\$ 16,720	
Japanese Yen		547,500	4,961	942,500	7,605	
Hungarian Forint		117,000	414	547,000	1,893	
Singapore Dollar		428	302	2,063	1,425	
Canadian Dollar				41	37	
British Pound				25	34	
Derivatives Not Designated a	as Hedging Instrume	ents:				
Japanese Yen		775,000	\$ 7,700	700,000	\$ 5,800	
British Pound		1,525	1,985	1,650	2,441	
Korean Won		1,750,000		1,400,000		
Hungarian Forint		355,000	1,269	250,000	857	
Singapore Dollar		1,575	1,252	1,525	1,074	
Taiwanese Dollar		27,225	1,249	26,425	800	
Information regarding the fai			ard contrac	ts was as fo		
	Asset Derivatives				Liability Derivat	ives
	Balance			Fair Value	Balance	Fair Value
	Sheet Location			October Decemb	berSheet 5 Location	October 2, December 2, 31, 2015
			2	2016 ^{31, 201}	Location	2016 51, 2015
Derivatives Designated as He	edging Instruments:					
Cash flow hedge forward contracts	Prepaid expenses assets	and other c	urrent	82 \$ 441	Accrued expenses	\$460 \$ 201
Derivatives Not Designated a						
Economic hedge forward contracts	Prepaid expenses assets	and other c	urrent	575 \$ 9	Accrued expenses	\$33 \$ 43

The following table presents the gross activity for all derivative assets and liabilities which were presented on a net basis on the Consolidated Balance Sheets due to the right of offset with each counterparty (in thousands): Asset Derivatives Liability Derivatives

	October 2, December 31,				October 2, December 31,		
	2016	2015		2016	2015		
Gross amounts of recognized assets	\$ 157	\$ 479	Gross amounts of recognized liabilities	\$ 507	\$ 279		
Gross amounts offset Net amount of assets presented	\$ 157	(29 \$450) Gross amounts offset Net amount of liabilities presented	(14 \$ 493) (35) \$ 244		

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

Information regarding the effect of derivative instruments on the consolidated financial statements was as follows (in thousands):

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		Three- Ended	nonths	Nine-months Ended			
	Location in Financial Statements		^r October	October	October		
		2016	4, 2015	2, 2016	4, 2015		
Derivatives Designated as Hedging Instru							
Gains (losses) recorded in shareholders' equity (effective portion) Gains (losses) reclassified from	Accumulated other comprehensive income (loss), net of tax	\$(332)	\$(122)	\$(332)) \$(122)		
accumulated other comprehensive income (loss) into current operations (effective portion)	Revenue	\$(250)	\$(125)	\$(453) \$(436)		
• •	Research, development, and engineering expenses	1	(3)	5	16		
	Selling, general, and administrative expenses	8	38	21	151		
	Total gains (losses) reclassified from accumulated other comprehensive income (loss) into current operations	\$(241)	\$(90)	\$(427) \$(269)		
Gains (losses) recognized in current							
operations (ineffective portion and discontinued derivatives)	Foreign currency gain (loss)	\$—	\$—	\$—	\$—		
Derivatives Not Designated as Hedging In	nstruments:						
Gains (losses) recognized in current operations	Foreign currency gain (loss)	\$24	\$(322)	\$(1,089)	\$20		
The following table provides the changes derivative instruments (in thousands):	in accumulated other comprehensive ind	come (los	s), net of	tax, relat	ed to		
Balance as of December 31, 2015		\$206					
Reclassification of net realized loss on case	sh flow hedges into current operations	427					
Net unrealized loss on cash flow hedges		(965)					
Balance as of October 2, 2016		\$(332)					
Net losses expected to be reclassified from operations within the next twelve months	-	ome (loss), net of t	ax, into c	urrent		
NOTE 10: Stock-Based Compensation Ex	spense						
The Company's share-based payments the							
stock awards. As of October 2, 2016, the							
with an exercise price equal to the market							
over four years based upon continuous set	· · ·						
granted with an exercise price equal to the market value of the Company's common stock at the time of grant.							

Conditions of the award may be based on continuing employment and/or achievement of pre-established performance goals and objectives. Vesting for performance-based restricted stock awards and time-based restricted stock awards must be greater than one year and three years, respectively.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The following table summarizes the Company's stock option activity for the nine-month period ended October 2, 2016:

	Shares (in thousands	Weighted- Average) Exercise Price	Weighted- Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2015	6,644	\$ 28.27		
Granted	1,751	34.10		
Exercised	(1,224)	18.87		
Forfeited or expired	(141)	36.97		
Outstanding as of October 2, 2016	7,030	\$ 31.18	7.4	\$ 152,398
Exercisable as of October 2, 2016	2,700	\$ 23.01	5.6	\$ 80,589
Options vested or expected to vest as of October 2, 2016 (1)	6,391	\$ 30.59	7.2	\$ 142,335

(1) In addition to the vested options, the Company expects a portion of the unvested options to vest at some point in the future. Options expected to vest are calculated by applying an estimated forfeiture rate to the unvested options. The fair values of stock options granted in each period presented were estimated using the following weighted-average assumptions:

	Three-months Ended			Nine-months				
				Ended				
	October October			Octobe		er October		
	2, 201	6	4, 201	5	2, 201	6	4, 20	
Risk-free rate	1.7	%	2.1	%	1.7	%	2.1	%
Expected dividend yield	0.84	%	1.25	%	0.84	%	1.25	%
Expected volatility	41	%	40	%	41	%	40	%
Expected term (in years)	5.5		5.4		5.5		5.4	
Distr frage rate								

Risk-free rate

The risk-free rate was based upon a treasury instrument whose term was consistent with the contractual term of the option.

Expected dividend yield

Generally, the current dividend yield is calculated by annualizing the cash dividend declared by the Company's Board of Directors and dividing that result by the closing stock price on the grant date.

Expected volatility

The expected volatility was based upon a combination of historical volatility of the Company's common stock over the contractual term of the option and implied volatility for traded options of the Company's stock.

Expected term

The expected term was derived from the binomial lattice model from the impact of events that trigger exercises over time.

The Company stratifies its employee population into two groups: one consisting of senior management and another consisting of all other employees. The Company currently expects that approximately 77% of its stock options granted to senior management and 72% of its options granted to all other employees will actually vest. Therefore, the Company currently applies an estimated annual forfeiture rate of 9% to all unvested options for senior management and a rate of 11% for all other employees. The Company revised its estimated forfeiture rates in the first quarters of 2016 and 2015, resulting in an increase to compensation expense of \$334,000 and \$461,000, respectively. The weighted-average grant-date fair values of stock options granted during the three-month periods ended October 2, 2016 and October 4, 2015 were \$12.34 and \$14.36, respectively. The weighted-average grant-date fair values of stock options granted during the nine-month periods ended October 2, 2016 and October 4, 2015 were \$12.25 and \$14.35, respectively.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The total intrinsic values of stock options exercised for the three-month periods ended October 2, 2016 and October 4, 2015 were \$23,139,000 and \$4,506,000, respectively. The total intrinsic values of stock options exercised for the nine-month periods ended October 2, 2016 and October 4, 2015 were \$32,514,000 and \$43,737,000, respectively. The total fair values of stock options vested for the three-month periods ended October 2, 2016 and October 4, 2015 were \$679,000 and \$565,000, respectively. The total fair values of stock options vested for the nine-month periods ended October 2, 2016 and October 4, 2015 were \$679,000 and \$565,000, respectively. The total fair values of stock options vested for the nine-month periods ended October 2, 2016 and October 4, 2015 were \$679,000 and \$565,000, respectively. The total fair values of stock options vested for the nine-month periods ended October 2, 2016 and October 4, 2015 were \$16,724,000 and \$14,984,000, respectively.

As of October 2, 2016, total unrecognized compensation expense related to non-vested stock options was \$22,193,000, which is expected to be recognized over a weighted-average period of 1.64 years.

The following table summarizes the Company's restricted stock activity for the nine-month period ended October 2, 2016:

			Aggregate
	Shares (in	Weighted-Average	Intrinsic
	thousands)	Grant Fair Value	Value (in
			thousands)(1)
Nonvested as of December 31, 2015	20	\$ 34.05	
Granted		_	
Vested		—	
Forfeited or expired		_	
Nonvested as of October 2, 2016	20	\$ 34.05	\$ 1,057
(1) Fair market value as of October 2	2, 2016.		

The fair values of restricted stock awards granted were determined based upon the market value of the Company's common stock at the time of grant. The initial cost is then amortized over the period of vesting until the restrictions lapse. These restricted shares will be fully vested in 2018. Participants are entitled to dividends on restricted stock awards, but only receive those amounts if the shares vest. The sale or transfer of these shares is restricted during the vesting period.

The total stock-based compensation expense and the related income tax benefit recognized for the three-month period ended October 2, 2016 were \$4,622,000 and \$1,520,000, respectively, and for the three-month period ended October 4, 2015 were \$5,493,000 and \$1,865,000, respectively. The total stock-based compensation expense and the related income tax benefit recognized for the nine-month period ended October 2, 2016 were \$15,883,000 and \$5,210,000, respectively, and for the nine-month period ended October 4, 2015 were \$15,883,000 and \$5,210,000, respectively, and for the nine-month period ended October 4, 2015 were \$17,070,000 and \$5,734,000, respectively. No compensation expense was capitalized as of October 2, 2016 or December 31, 2015. The following table presents the stock-based compensation expense by caption for each period presented on the Consolidated Statements of Operations (in thousands):

· · ·	Three-months		Nine-mo	nths
	Ended		Ended	
	October 2 October		October	
	2, 2016	4, 2015	2, 2016	4, 2015
Cost of revenue	\$273	\$351	\$795	\$1,167
Research, development, and engineering	1,366	1,130	4,942	4,097
Selling, general, and administrative	2,983	2,906	10,146	10,273
Discontinued operations		1,106		1,533
	\$4,622	\$5,493	\$15,883	\$17,070

NOTE 11: Stock Repurchase Program

In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of October 2, 2016, the Company repurchased 2,666,000 shares at a cost of \$100,000,000 under this program, including 355,000 shares at a cost of \$16,064,000 during the nine-month period ended October 2, 2016. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the

Company's common stock. Purchases under this November 2015 program commenced during the third quarter of 2016. As of October 2, 2016, the Company repurchased 59,000 shares at a cost of \$2,877,000 under this program. The Company may repurchase shares under the November 2015 program in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 12: Taxes

A reconciliation of the United States federal statutory corporate tax rate to the Company's income tax expense on continuing operations, or effective tax rate, was as follows:

	Three-months Ended		Nine-months					
	Three-monuis Ended			Ended				
	Octo 2, 20		Octo 4, 20		Oc 2, 201	tobe 16		ober 015
Income tax provision at federal statutory corporate tax rate	35	%	35	%	35	%	35	%
State income taxes, net of federal benefit	1	%	1	%	1	%	1	%
Foreign tax rate differential	(17)%	(19)%	(17)%	(19)%
Tax credit	(1)%		%	(1)%		%
Discrete tax events	(13)%	(5)%	(7)%	(2)%
Income tax provision on continuing operations	5	%	12	%	11	%	15	%

In the first quarter of 2016, the Company adopted Accounting Standards Update (ASU) 2016-09, "Improvements to Employee Share-Based Payment Accounting," which was issued by the Financial Accounting Standards Board in March 2016. This Update requires excess tax benefits to be recognized as an income tax benefit in the income statement. Previous guidance required excess tax benefits to be recognized as additional paid-in-capital in shareholders' equity on the balance sheet. This provision is required to be applied prospectively and therefore, prior periods were not restated. Additionally, this ASU also requires excess tax benefits to be classified along with other income tax cash flows as an operating activity in the statement of cash flows. In order to improve comparability, the Company applied this provision of the amendment retrospectively. For the nine-month period ended October 4, 2015, the Company reclassified a tax benefit of \$9,937,000 from cash flows provided by financing activities to cash flows provided by operating activities on the consolidated statement of cash flows.

The effective tax rate for 2016 included the impact of the following discrete tax events: (1) a decrease in tax expense of \$463,000 in the first quarter of 2016, \$745,000 in the second quarter of 2016, and \$6,038,000 in the third quarter of 2016 from the excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises, (2) an increase in tax expense of \$104,000 recorded in the second quarter of 2016 and a decrease in tax expense of \$543,000 recorded in the third quarter of 2016 from the final true-up of the prior year's tax accrual upon filing the actual tax returns, and (3) a decrease in tax expense of \$893,000 recorded in the third quarter of 2016 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties. These discrete events decreased the effective tax rate on continuing operations from a provision of 18% to a provision of 5% and 11% for the three-month and nine-month periods ended October 2, 2016, respectively.

The effective tax rate for 2015 included the impact of the following discrete tax events: (1) a decrease in tax expense of \$364,000 recorded in the first quarter of 2015 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties, (2) a decrease in tax expense of \$112,000 recorded in the second quarter of 2015 from the final true-up of the prior year's tax accrual upon filing the actual tax returns, (3) an increase in tax expense of \$65,000 recorded in the second quarter of 2015 from the write down of a deferred tax asset, (4) a decrease in tax expense of \$65,000 recorded in the second quarter of 2015 for the final true-up of the prior year's tax accrual upon filing the actual tax returns, (3) an increase in tax expense of \$65,000 recorded in the third quarter of 2015 for the final true-up of the prior year's tax accrual upon filing the actual tax returns, and (5) a decrease in tax expense of \$611,000 recorded in the third quarter of 2015 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties. These discrete events decreased the effective tax rate on continuing operations from a provision of 17% to a provision of 12% and 15% for the three-month and nine-month periods ended October 4, 2015.

In the first quarter of 2016, the Company adopted Accounting Standards Update (ASU) 2015-17, "Income Taxes - Balance Sheet Classification of Deferred Taxes." This ASU requires that deferred tax assets and liabilities be classified as non-current in a classified balance sheet. In order to improve comparability, the Company applied the amendments in this Update retrospectively to all periods presented. As of December 31, 2015, the Company

reclassified current deferred income tax assets and liabilities of \$7,104,000 and \$319,000, respectively, to non-current on the consolidated balance sheet.

During the nine-month period ended October 2, 2016, the Company recorded a \$281,000 increase in reserves for income taxes, net of deferred tax benefit. Estimated interest and penalties included in these amounts totaled \$47,000 for the nine-month period ended October 2, 2016.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The Company's reserve for income taxes, including gross interest and penalties, was \$6,131,000 as of October 2, 2016, which included \$5,104,000 classified as a non-current liability and \$1,027,000 recorded as a reduction to non-current deferred tax assets. The amount of gross interest and penalties included in these balances was \$610,000. If the Company's tax positions were sustained or the statutes of limitations related to certain positions expired, these reserves would be released and income tax expense would be reduced in a future period. As a result of the expiration of certain statutes of limitations, there is a potential that a portion of these reserves could be released, which would decrease income tax expense by approximately \$950,000 to \$1,050,000 over the next twelve months.

The Company has defined its major tax jurisdictions as the United States, Ireland, China, and Japan, and within the United States, Massachusetts and California. Within the United States, the tax years 2013 through 2015 remain open to examination by the Internal Revenue Service and various state tax authorities. The tax years 2012 through 2015 remain open to examination by various taxing authorities in other jurisdictions in which the Company operates. NOTE 13: Weighted-Average Shares

Weighted-average shares were calculated as follows (in thousands):

	Three-months	Nine-months
	Ended	Ended
	October Octobe	r October 2, 4, 2015 2016
	2, 4, 2015	² , 4, 2015 2016
Basic weighted-average common shares outstanding	85,460 86,303	85,167 86,756
Effect of dilutive stock options	1,886 1,473	1,638 1,803

Weighted-average common and common-equivalent shares outstanding 87,346 87,776 86,805 88,559 Stock options to purchase 491,375 and 3,641,279 shares of common stock, on a weighted-average basis, were outstanding during the three-month and nine-month periods ended October 2, 2016, respectively, and 3,251,000 and 2,049,000 for the same periods in 2015, but were not included in the calculation of dilutive net income per share because they were anti-dilutive.

NOTE 14: Discontinued Operations

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD). The financial results of SISD are reported as a discontinued operation for the three-month and nine-month periods ended October 2, 2016 and October 4, 2015.

A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016, along with \$123,000 of legal fees. The tax benefit related to this expense was \$149,000, resulting in a net loss from discontinued operations of \$255,000.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

The major classes of revenue and expense included in discontinued operations were as follows (in thousands):

	Three-months Ende	d Nine-months
	Three-months Ende	Ended
	October October 4,	October
	² , 2015	2, 4, 2015
	2016 ²⁰¹³	2016 4, 2013
Revenue	\$ _\$ _	\$— \$23,248
Cost of revenue		— (11,291)
Research, development, and engineering expenses		— (2,126)
Selling, general, and administrative expenses		— (7,800)
Foreign currency gain (loss)		— (177)
Operating income from discontinued operations		— 1,854
Gain (loss) on sale of discontinued operations	— 125,465	(404) 125,465
Income (loss) from discontinued operations before income tax expense	— 125,465	(404) 127,319
(benefit)	— 123,403	(404) 127,519
Income tax expense (benefit) on discontinued operations	— 47,175	(149) 47,801
Net income (loss) from discontinued operations	\$\$ 78,290	\$(255) \$79,518

Significant non-cash items related to the discontinued business were as follows (in thousands):

	Thre	e-months Ended	Nine-months Ended
	Octo	ber October 4,	October October
	2, 2016	2015	2, 4 2015 2016
Stock-based compensation expense	\$ -		\$\$ 1,533
Capital expenditures		_	— 482
Depreciation expense			— 401
Amortization expense			— 165
NOTE 15: Acquisitions			

AQSense, S.L.

On August 30, 2016, the Company acquired selected assets and assumed selected liabilities of AQSense, S.L., a privately-held 3D machine vision software provider based in Spain. This transaction has been accounted for as a business combination. The Company paid €2,200,000 (\$2,483,000) in cash upon closing. There are no contingent payments. The purchase price was subject to a working capital adjustment of €32,000 (\$36,000), which was paid in October 2016, thereby increasing the purchase price to €2,232,000 (\$2,519,000).

Under this transaction, in addition to customer relationships and completed technology, the Company acquired a 3D vision tool library and a team of software engineers that are expected to help the Company accelerate the development of future 3D vision products. Assets acquired and liabilities assumed have been recorded at their estimated fair values as of the acquisition date.

The purchase price was allocated as follows (in thousands):

Accounts receivable \$168

Customer relationships 598

Completed technology 384

Goodwill 1,383

Accrued expenses (14)

Purchase price \$2,519

The customer relationships and completed technology are included in "intangible assets" on the Consolidated Balance Sheet. The customer relationships will be amortized to selling, general and administrative expenses, and the

completed technology will be amortized to cost of revenue, both on a straight-line basis over five years. The acquired goodwill is not deductible for tax purposes. Transaction costs were immaterial and were expensed as incurred.

COGNEX CORPORATION NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

EnShape GmbH

On October 27, 2016, the Company acquired all of the outstanding shares of EnShape GmbH, a privately-held developer of 3D sensors based in Germany, for a purchase price of €7,000,000.

Given the timing of the acquisition, the Company is in the process of completing the purchase price allocation, which will be recorded in the fourth quarter of 2016. Transaction costs are immaterial and are being expensed as incurred. Pro-forma information for these acquisitions has not been presented because they are not material, either individually or in the aggregate.

NOTE 16: Subsequent Events

On October 31, 2016, the Company's Board of Directors declared a cash dividend of \$0.075 per share. The dividend is payable December 16, 2016 to all shareholders of record as of the close of business on December 2, 2016.

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

Forward-Looking Statements

Certain statements made in this report, as well as oral statements made by the Company from time to time, constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Readers can identify these forward-looking statements by our use of the words "expects," "anticipates," "estimates," "believes," "projects," "intends," "plans," "will," "ma "could," "should," and similar words and other statements of a similar sense. These statements are based upon our current estimates and expectations as to prospective events and circumstances, which may or may not be in our control and as to which there can be no firm assurances given. These forward-looking statements, which include statements regarding business and market trends, future financial performance, customer order rates, the timing for recognition of revenue, expected areas of growth, research and development activities, product mix, investments, and strategic plans, involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include: (1) the loss of a large customer; (2) current and future conditions in the global economy; (3) the reliance on revenue from the consumer electronics or automotive industries; (4) the inability to penetrate new markets; (5) the inability to achieve significant international revenue; (6) fluctuations in foreign currency exchange rates and the use of derivative instruments; (7) information security breaches or business system disruptions; (8) the inability to attract and retain skilled employees; (9) the reliance upon key suppliers to manufacture and deliver critical components for our products; (10) the failure to effectively manage product transitions or accurately forecast customer demand; (11) the inability to design and manufacture high-quality products; (12) the technological obsolescence of current products and the inability to develop new products; (13) the failure to properly manage the distribution of products and services; (14) the inability to protect our proprietary technology and intellectual property; (15) our involvement in time-consuming and costly litigation; (16) the impact of competitive pressures; (17) the challenges in integrating and achieving expected results from acquired businesses; (18) potential impairment charges with respect to our investments or for acquired intangible assets or goodwill; and (19) exposure to additional tax liabilities. The foregoing list should not be construed as exhaustive and we encourage readers to refer to the detailed discussion of risk factors included in Part I - Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015. The forward-looking statements speak only as of the date made and undue reliance should not be placed on these statements. We disclaim any obligation to update any forward-looking statements contained herein after the date of this Quarterly Report.

Executive Overview

Cognex Corporation is a leading worldwide provider of machine vision products that capture and analyze visual information in order to automate tasks, primarily in manufacturing processes, where vision is required. On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD) that specialized in machine vision products that inspected the surfaces of materials processed in a continuous fashion. The financial results of SISD are reported as a discontinued operation for all periods presented.

In addition to product revenue derived from the sale of machine vision products, the Company also generates revenue by providing maintenance and support, consulting, and training services to its customers; however, service revenue accounted for less than 10% of total revenue for all periods presented.

The Company's customers are predominantly in the factory automation market. Factory automation customers purchase Cognex products and incorporate them into their manufacturing processes. Virtually every manufacturer can achieve better quality and manufacturing efficiency by using machine vision, and therefore, this market includes a broad base of customers across a variety of industries, including consumer electronics, automotive, consumer products, food and beverage, medical devices, and pharmaceuticals. Factory automation customers also purchase Cognex products for use outside of the manufacturing process, such as using ID products in logistics automation for package sorting and distribution. Sales to factory automation customers represented 96% of total revenue for the third quarter of 2016 compared to 95% of total revenue for the third quarter of 2015.

A small percentage of the Company's customers are in the semiconductor and electronics capital equipment market. These customers purchase Cognex products and integrate them into the automation equipment that they manufacture and then sell to their customers to either make semiconductor chips or assemble printed circuit boards. Demand from these customers has been relatively flat on an annual basis for the past several years. Sales to semiconductor and electronics capital equipment manufacturers represented only 4% of total revenue for the third quarter of 2016 compared to 5% of total revenue for the third quarter of 2015.

Revenue for the third quarter of 2016 totaled \$147,952,000, representing an increase of \$40,365,000, or 38%, from the third quarter of 2015. Although the majority of this increase came from a material customer in the consumer electronics industry, revenue from other customers also increased from the prior year by 11%. Gross margin was 78% of revenue in the third quarter of 2016 compared to 76% of revenue in the third quarter of 2015 due primarily to the mix of products and services sold to this customer in each period. Operating expenses increased by \$7,892,000, or 15%, from the third quarter of 2015 due principally to higher achievement on bonus plans tied to the Company's operating income margin. Operating income was \$54,528,000, or 37% of revenue, in the third quarter of 2016 compared to \$28,485,000, or 26% of revenue, in the third quarter of 2015; net income from continuing operations was \$53,675,000, or 36% of revenue, in the third quarter of 2016 compared to \$25,822,000, or 24% of revenue, in the third quarter of 2016 compared to \$20,580,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the third quarter of 2016 compared to \$0,000, or 24% of revenue, in the thi

Results of Operations

As foreign currency exchange rates are a factor in understanding period-to-period comparisons, we believe the presentation of results on a constant-currency basis in addition to reported results helps improve investors' ability to understand our operating results and evaluate our performance in comparison to prior periods. We also use results on a constant-currency basis as one measure to evaluate our performance. Constant-currency information compares results between periods as if exchange rates had remained constant period-over-period. We generally refer to such amounts calculated on a constant-currency basis as excluding the impact of foreign currency exchange rate changes. Results on a constant-currency basis are not in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP) and should be considered in addition to, and not as a substitute for, results prepared in accordance with U.S. GAAP.

Revenue

Revenue increased by \$40,365,000, or 38%, for the three-month period and increased by \$38,642,000, or 11%, for the nine-month period. Changes in foreign currency exchange rates did not have a material impact on revenue in either period. Revenue from factory automation customers increased by \$39,651,000 for the three-month period and increased by \$39,190,000 for the nine-month period, while revenue from semiconductor and electronics capital equipment manufacturers, which represented only 4% and 5% of total revenue for the three-month and nine-month periods in 2016, respectively, increased by \$714,000 for the three-month period and decreased by \$548,000 for the nine-month period.

Higher revenue from a material customer in the consumer electronics industry represented a significant portion of the increase in factory automation revenue for the three-month period due largely to the timing of when orders were recognized as revenue in each year. In 2015, the majority of revenue from this customer was recognized in the second quarter with a still large, but lesser, amount recognized in the third quarter. In 2016, revenue from this customer was recognized more evenly between the second and third quarters. Revenue from this customer has historically not been significant in either the first or fourth quarters of the year. Future seasonality will depend on a number of items, including that customer's product introduction cycles.

Revenue from other factory automation customers increased by 11% for both the three-month and nine-month periods. These increases were driven by a higher volume of products sold in the Company's largest three regions, the Americas, Europe, and Greater China, with the largest percentage growth coming from Greater China. The increased volume in the Americas for the nine-month period was largely driven by higher revenue from customers in the logistics industry. The Company reported its highest level of revenue in the logistics industry in the second quarter of 2016. Excluding the material customer noted in the preceding paragraph, we experienced a sequential decline in factory automation revenue from the second quarter to the third quarter of 2016 due to lower logistics revenue from the particularly high second quarter level, as well as a seasonal slowdown in the broader factory automation market that we typically experience during the summer months, particularly in Europe.

Gross margin as a percentage of revenue was 78% and 77% for the three-month and nine-month periods in 2016, respectively, compared to 76% and 78% for the same periods in 2015. The decrease for the nine-month period was due to a trend toward higher hardware content in our product sales as we move away from software-only solutions,

higher inventory charges, and an increased level of logistics projects that require installation services with relatively lower margins. The second quarter of 2016 included an inventory charge that reduced gross margin for the nine-month period by approximately 40 basis points resulting from changes in product development plans that are not expected to recur for the remainder of the year. These decreases were partially offset by the favorable impact of material cost reductions and volume purchasing, as well as manufacturing efficiencies achieved from higher revenue levels as fixed manufacturing costs were spread over a larger revenue base.

The increase in gross margin for the three-month period was due in part to higher margins on sales to a material customer in the consumer electronics industry. Although this customer, which receives preferred pricing, represented a greater percentage of total revenue in the third quarter of 2016 compared to the third quarter of 2015, the mix of products and on-site support services sold to this customer in 2016 compared to 2015 had a favorable impact on the gross margin for the three-month period. The increase for the three-month period was also due to the favorable impact of material cost reductions and volume purchasing.

Operating Expenses

Research, Development, and Engineering Expenses increased by \$1,626,000, or 10%, for the three-month period and increased by \$6,564,000, or 13%, for the nine-month period as detailed in the table below (in thousands).

	Three-month	Nine-month
	period	period
RD&E expenses in 2015	\$ 16,977	\$ 52,265
Company bonus accruals	2,086	2,830
Personnel-related costs	362	2,558
Stock-based compensation expense	245	853
Outsourced engineering costs	(898)	(304)
Other	(169)	627
RD&E expenses in 2016	\$ 18,603	\$ 58,829

RD&E expenses increased due to higher personnel-related costs resulting primarily from headcount additions to support new product introductions and the higher business level. Higher company bonus accruals were recorded in 2016 as a result of higher achievement levels on plans that were set at the beginning of the year. In addition, stock-based compensation expense was higher than the prior year. These increases were partially offset by lower outsourced engineering costs. Personnel-related costs and outsourced engineering costs were both particularly high in the first quarter of each year due to the development of engineering prototypes for customer orders that were received later in the year.

RD&E expenses as a percentage of revenue were 13% and 15% for the three-month and nine-month periods in 2016, respectively, compared to 16% and 15% for the same periods in 2015. We believe that a continued commitment to RD&E activities is essential in order to maintain or achieve product leadership with our existing products and to provide innovative new product offerings, as well as to provide engineering support for large customers. In addition, we consider our ability to accelerate time to market for new products to be critical to our revenue growth. Therefore, we expect to continue to make significant RD&E investments in the future. Although we target our RD&E spending to be between 10% and 15% of revenue, this percentage is impacted by revenue levels and investment cycles. Selling, General, and Administrative Expenses

Selling, general, and administrative (SG&A) expenses increased by \$6,266,000, or 17%, for the three-month period and increased by \$4,145,000, or 3%, for the nine-month period as detailed in the table below (in thousands).

	Three-month	Nine-month
	period	period
SG&A expenses in 2015	\$ 35,806	\$118,980
Company bonus accruals	2,583	3,403
Personnel-related costs	439	2,694
Sales commissions	963	910
Sales demonstration equipment	650	203
Microscan legal fees and settlement		(5,023)
Other	1,631	1,958
SG&A expenses in 2016	\$ 42,072	\$123,125

SG&A expenses increased from the prior year due to higher personnel-related costs resulting primarily from headcount additions, principally sales personnel. Higher company bonus accruals and sales commissions were recorded in 2016 as a result of higher achievement levels on plans that were set at the beginning of the year. In addition, the Company increased its spending on sales demonstration equipment related to new products. Offsetting

these increases was the settlement of patent litigation actions with Microscan Systems, Inc. in the second quarter of 2015. The Company

incurred legal fees related to these actions totaling \$3,190,000 in the nine-month period in 2015 and recorded a settlement expense of \$1,833,000 in the second quarter of 2015.

Non-operating Income (Expense)

The Company recorded foreign currency losses of \$607,000 and \$377,000 for the three-month and nine-month periods in 2016, respectively, compared to losses of \$40,000 for the three-month period in 2015 and gains of \$580,000 for the nine-month period in 2015. The foreign currency gains and losses in each period resulted primarily from the revaluation and settlement of accounts receivable, accounts payable, and intercompany balances that are reported in one currency and collected in another.

Investment income increased by \$1,206,000, or 143%, for the three-month period and increased \$1,983,000, or 75%, for the nine-month period. In the third quarter of 2016, the Company received a \$1,492,000 cash distribution from its limited partnership investment, of which \$942,000 was accounted for as a return of capital, reducing the carrying value of this investment to zero, with the remaining \$550,000 recorded as investment income. Future distributions will be recorded as investment income. The remaining increase in investment income was due primarily to increased funds available for investment.

The Company recorded other income of \$374,000 and \$803,000 for the three-month and nine-month periods in 2016, respectively, compared to other expense of \$23,000 and \$388,000 for the same periods in 2015. Other income for the nine-month period in 2016 included a \$463,000 benefit resulting from a decrease in the fair value of the contingent consideration liability that arose from a business acquisition completed in the third quarter of 2015. In addition, the Company received a foreign government subsidy in the amount of \$422,000 that was recorded as other income in the third quarter of 2016. Other income (expense) also includes rental income, net of associated expenses, from leasing space in buildings adjacent to the Company's corporate headquarters.

Income Tax Expense

The Company's effective tax rate was 5% and 11% of the Company's pre-tax income for the three-month and nine-month periods in 2016, respectively, compared to 12% and 15% for the same periods in 2015. The effective tax rate for 2016 included a decrease in tax expense of \$463,000 in the first quarter of 2016, \$745,000 in the second quarter of 2016, and \$6,038,000 in the third quarter of 2016 from the excess tax benefit arising from the difference between the deduction for tax purposes and the compensation cost recognized for financial reporting purposes from stock option exercises. In the first quarter of 2016, the Company adopted Accounting Standards Update 2016-09, "Improvements to Employee Share-Based Payment Accounting," which was issued by the Financial Accounting Standards Board in March 2016. This Update requires excess tax benefits to be recognized as an income tax benefit in the income statement. Previous guidance required excess tax benefits to be recognized as additional paid-in-capital in shareholders' equity on the balance sheet. The effective tax rate for 2016 also included an increase in tax expense of \$104,000 recorded in the second quarter of 2016 and a decrease in tax expense of \$543,000 recorded in the third quarter of 2016 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties.

The effective tax rate for 2015 included a decrease in tax expense of \$364,000 recorded in the first quarter of 2015 from the expiration of the statutes of limitations for certain reserves for income tax uncertainties, a decrease in tax expense of \$112,000 recorded in the second quarter of 2015 from the final true-up of the prior year's tax accrual upon filing the actual tax returns, an increase in tax expense of \$65,000 recorded in the second quarter of 2015 from the write down of a deferred tax asset, a decrease in tax expense of \$993,000 recorded in the third quarter of 2015 for the final true-up of the prior year's tax accrual upon filing the actual tax returns, and a decrease in tax expense of \$611,000 recorded in the third quarter of 2015 from the expiration of statutes of limitations for certain reserves for income tax uncertainties.

Excluding the impact of these discrete tax events, the Company's effective tax rate was approximately 18% for all periods presented. The majority of income earned outside of the United States is permanently reinvested to provide funds for international expansion. The Company is tax resident in numerous jurisdictions around the world and has identified its major tax jurisdictions as the United States, Ireland and China. The statutory tax rate is 12.5% in Ireland and 25% in China. International rights to certain of the Company's intellectual property are held by a subsidiary whose

legal jurisdiction does not tax this income, resulting in a foreign effective tax rate lower than the above mentioned statutory rates.

Discontinued Operations

On July 6, 2015, the Company completed the sale of its Surface Inspection Systems Division (SISD) that specializes in machine vision products that inspect the surfaces of materials processed in a continuous fashion. Net loss from discontinued operations was \$255,000 for the nine-month period in 2016, compared to net income of \$78,290,000 for the three-month period in 2015 and net income of \$79,518,000 for the nine-month period in 2015. Net income from discontinued operations in the prior year represents the operating results of SISD for periods prior to the sale transaction closing date.

A binding arbitration was concluded in the second quarter of 2016 with respect to certain product performance claims made by an SISD customer, for which the Company remained responsible under the indemnity provisions of the sale transaction. In that proceeding, the tribunal ordered the Company to pay the customer approximately \$326,000, primarily representing a refund of the product purchase price. The tribunal also ordered the customer to pay the Company approximately \$45,000, primarily representing reimbursement of legal fees. The net settlement of \$281,000 was recorded in discontinued operations in the second quarter of 2016, along with \$123,000 of legal fees. The tax benefit related to this expense was \$149,000, resulting in a net loss from discontinued operations of \$255,000.

Liquidity and Capital Resources

The Company has historically been able to generate positive cash flow from operations, which has funded its operating activities and other cash requirements and has resulted in an accumulated cash, cash equivalent, and investment balance of \$705,450,000 as of October 2, 2016. The Company has established guidelines relative to credit ratings, diversification, and maturities of its investments that maintain liquidity.

The Company's cash requirements during the nine-month period in 2016 were met with positive cash flows from operations, investment maturities, and the proceeds from stock option exercises. Cash requirements consisted of operating activities, investment purchases, the payment of dividends, the repurchase of common stock, and capital expenditures. Cash flows from operating activities included a significant increase in accounts receivable and unbilled revenue related to a material customer in the consumer electronics industry that the Company expects to bill and collect before year end. Capital expenditures for the nine-month period in 2016 totaled \$10,491,000 and consisted primarily of computer hardware, computer software, manufacturing test equipment related to new product introductions, and improvements made to the Company's headquarters building in Natick, Massachusetts. On August 21, 2015, the Company acquired selected assets of Manatee Works, Inc. The Company paid \$1,023,000 in cash upon closing and \$337,000 in cash during the second quarter of 2016 that was contingent upon reaching a milestone revenue level. Future contingent payments, which are also based upon reaching milestone revenue levels, had an estimated fair value of \$2,200,000 as of October 2, 2016, with \$800,000 to be paid if earned in the third quarter of 2017 and \$1,400,000 to be paid if earned in the third quarter of 2018.

On August 30, 2016, the Company acquired selected assets and assumed selected liabilities of AQSense, S.L. The Company paid \$2,483,000 in cash upon closing and \$36,000 in cash in October 2016 representing a working capital adjustment. There are no contingent payments related to this transaction.

The Company's Board of Directors declared and paid a cash dividend of \$0.07 per share in the second, third, and fourth quarters of 2015, as well as in the first quarter of 2016. The cash dividend was increased to \$0.075 per share in the second and third quarters of 2016. Dividends paid during the nine-month period in 2016 amounted to \$18,761,000. The dividend in the second quarter of 2015 was the first dividend declared and paid since the fourth quarter of 2012 when the Company's Board of Directors accelerated dividends in advance of an increase in the federal tax on dividends paid after December 31, 2012. Due to these accelerated payments, no dividends were declared or paid in 2013, 2014, or the first quarter of 2015. Future dividends will be declared at the discretion of the Company's Board of Directors as the Board deems relevant including, among other things, the Company's ability to generate positive cash flows from operations.

In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. As of October 2, 2016, the Company repurchased 2,666,000 shares at a cost of \$100,000,000 under this program, including 355,000 shares at a cost of \$16,064,000 during the nine-month period ended October 2, 2016. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the

Company's common stock. Purchases under this November 2015 program commenced during the third quarter of 2016. As of October 2, 2016, the Company repurchased 59,000 shares at a cost of \$2,877,000 under this program. The Company may repurchase shares under the November 2015 program in future periods depending upon a variety of factors, including, among other things, the impact of dilution from employee stock options, stock price, share availability, and cash requirements.

The Company believes that its existing cash, cash equivalent, and investment balances, together with cash flow from operations, will be sufficient to meet its operating, investing, and financing activities for the next twelve months. As of October 2, 2016, the Company had \$705,450,000 million in cash, cash equivalents, and debt securities that could be converted into cash. In addition, the Company has no debt and does not anticipate needing debt financing in the near future. We believe that our strong cash position has put us in a relatively good position with respect to our longer-term liquidity needs.

New Pronouncements

Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers"

The amendments in ASU 2014-09 will supersede and replace all currently existing U.S. GAAP, including industry-specific revenue recognition guidance, with a single, principle-based revenue recognition framework. The concept guiding this new model is that revenue recognition will depict transfer of control to the customer in an amount that reflects consideration to which an entity expects to be entitled. The core principles supporting this framework include (1) identifying the contract with a customer, (2) identifying separate performance obligations within the contract, (3) determining the transaction price, (4) allocating the transaction price to the performance obligations, and (5) recognizing revenue. This new framework will require entities to apply significantly more judgment. This increase in management judgment will require expanded disclosure on estimation methods, inputs, and assumptions for revenue recognition.

In March 2016, ASU 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)," was issued, in April 2016, ASU 2016-10, "Identifying Performance Obligations and Licensing," was issued, and in May 2016, ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients" was issued. These Updates do not change the core principle of the guidance under ASU 2014-09, but rather provide implementation guidance. ASU 2015-14, "Deferral of the effective date," amended the effective date of ASU 2014-09 for public companies to annual reporting periods beginning after December 15, 2017. Early adoption is permitted, but only beginning after December 15, 2016. The Financial Accounting Standards Board may release additional implementation guidance in future periods. Management will continue to evaluate the impact of this standard as it evolves.

Accounting Standards Update (ASU) 2015-11, "Inventory - Simplifying the Measurement of Inventory"

ASU 2015-11 requires companies to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which a company must measure inventory at the lower of cost or market. This ASU eliminates the need to determine replacement cost and evaluate whether said cost is within a quantitative range. This ASU also further aligns U.S. GAAP and international accounting standards. For public companies, the guidance in ASU 2015-11 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted. Management does not expect ASU 2015-11 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-01, "Financial Instruments - Recognition and Measurement of Financial Assets and Financial Liabilities"

ASU 2016-01 provides guidance related to certain aspects of recognition, measurement, presentation, and disclosure of financial instruments. The amendments in this Update affect all entities that hold financial assets or owe financial liabilities. This ASU requires equity investments (except those accounted under the equity method) to be measured at fair value with changes in fair value recognized in net income. However, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment. This ASU also eliminates the requirement for public companies to disclose the methods and significant assumptions used to estimate the fair value for financial instruments measured at amortized cost on the balance sheet, and it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements. For public companies, the guidance in ASU 2016-01 is effective for annual periods beginning after December 15, 2017, and interim periods within those annual periods. Early adoption is not permitted except for certain amendments in this Update. Management does not expect ASU 2016-01 to have a material impact on the Company's financial statements and disclosures. Accounting Standards Update (ASU) 2016-02, "Leases"

ASU 2016-02 creates Topic 842, Leases. The objective of this Update is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet, and disclosing key information about leasing arrangements. This ASU applies to any entity that enters into a lease, although lessees will see the most significant changes. The main difference between current U.S. GAAP and Topic 842 is the recognition of lease assets and lease liabilities on the balance sheet for those leases classified as operating leases under current U.S. GAAP. Topic 842 distinguishes between finance leases and operating leases, which are substantially similar to

the classification criteria for distinguishing between capital leases and operating leases under current U.S. GAAP. For public companies, the guidance in ASU 2016-02 is effective for annual periods beginning after December 15, 2018, and interim periods within those annual periods. This ASU should be applied using a modified retrospective approach. Management is in the process of evaluating the impact of this Update.

Accounting Standards Update (ASU) 2016-05, "Derivatives and Hedging - Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships"

ASU 2016-05 applies to all reporting entities for which there is a change in the counterparty to a derivative instrument that has been designated as the hedging instrument. The amendments in this Update clarify that a change in the counterparty does not, in and of itself, require de-designation of that hedging relationship provided that all other hedge accounting criteria continue to be met. For public companies, the guidance in ASU 2016-05 is effective for annual periods beginning after December 15, 2016, and interim periods within those annual periods. This ASU should be applied on either a prospective basis or a modified retrospective basis. Management does not expect ASU 2016-05 to have a material impact on the Company's financial statements and disclosures.

Accounting Standards Update (ASU) 2016-13, "Financial Instruments - Measurement of Credit Losses" ASU 2016-13 applies to all reporting entities holding financial assets that are not accounted for at fair value through net income (debt securities). The amendments in this Update eliminate the probable initial recognition threshold to recognize a credit loss under current U.S. GAAP and, instead, reflect an entity's current estimate of all expected credit losses. In addition, this Update broadens the information an entity must consider in developing the credit loss estimate, including the use of reasonable and supportable forecasted information. The amendments in this Update require that credit losses on available-for-sale debt securities be presented as an allowance rather than as a write-down and an entity will be able to record reversals of credit losses in current period net income. For public companies, the guidance in ASU 2016-13 is effective for annual periods beginning after December 15, 2019, and interim periods within those annual periods. This ASU should be applied through a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which the guidance is effective. Management does not expect ASU 2016-13 to have a material impact on the Company's financial statements and disclosures.

ITEM 3: QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes to the Company's exposures to market risk since December 31, 2015.

ITEM 4: CONTROLS AND PROCEDURES

As required by Rules 13a-15 and 15d-15 of the Securities Exchange Act of 1934, the Company has evaluated, with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, the effectiveness of its disclosure controls and procedures (as defined in such rules) as of the end of the period covered by this report. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer concluded that such disclosure controls and procedures were effective as of that date. From time to time, the Company reviews its disclosure controls and procedures, and may from time to time make changes aimed at enhancing their effectiveness and to ensure that the Company's systems evolve with its business. There was no change in the Company's internal control over financial reporting that occurred during the quarter ended October 2, 2016 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II: OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Various claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against the Company. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

ITEM 1A. RISK FACTORS

For a complete list of factors that could affect the Company's business, results of operations, and financial condition, see the risk factors discussion provided in Part I—Item 1A of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

The following table sets forth information with respect to purchases by the Company of shares of its common stock during the three-month period ended October 2, 2016:

	Total Number of Shares Purchased		Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
July 4 - July 31, 2016	_	\$ —	_	\$107,346,000
August 1 - August 28, 2016	97,500	49.69	97,500	102,501,000
August 29 - October 2, 2016	108,400	49.61	108,400	97,123,000
Total	205,900	\$ 49.65	205,900	\$97,123,000

(1) In August 2015, the Company's Board of Directors authorized the repurchase of \$100,000,000 of the Company's common stock. Purchases under this program commenced in the third quarter of 2015. In November 2015, the Company's Board of Directors authorized the repurchase of an additional \$100,000,000 of the Company's common stock. Purchases under this program commenced once the August 2015 program was completed in September 2016. ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES Not applicable. ITEM 5. OTHER INFORMATION None.

ITEM 6. EXHIBITS

11 EM 6.	EXHIBITS
Exhibit	
Number	
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities
51.1	Exchange Act of 1934*
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) under the Securities
51.2	Exchange Act of 1934*
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of
52.1	the Sarbanes-Oxley Act of 2002**
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of
52.2	the Sarbanes-Oxley Act of 2002**
101	xBRL (Extensible Business Reporting Language)
	The following materials from Cognex Corporation's Quarterly Report on Form 10-Q for the period ended
	October 2, 2016, formatted in xBRL: (i) Consolidated Statements of Operations for the three-month and
	nine-month periods ended October 2, 2016 and October 4, 2015; (ii) Consolidated Statements of
	Comprehensive Income for the three-month and nine-month periods ended October 2, 2016 and October 4,
	2015; (iii) Consolidated Balance Sheets as of October 2, 2016 and December 31, 2015; (iv) Consolidated
	Statements of Cash Flows for the nine-month periods ended October 2, 2016 and October 4, 2015; (v)
	Consolidated Statement of Shareholders' Equity for the nine-month period ended October 2, 2016; and (vi)
	Notes to Consolidated Financial Statements.
*	Filed herewith

** 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.

Date: October 31, 2016 COGNEX CORPORATION

By:/s/ Robert J. Willett Robert J. Willett President and Chief Executive Officer (principal executive officer)

By:/s/ Richard A. Morin Richard A. Morin Executive Vice President of Finance and Administration and Chief Financial Officer (principal financial and accounting officer)

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ith this agreement for the period ended December 31, 2004. The Company will not be continuing this relationship after December 31, 2004.

In March 2002, the Company entered into a license agreement with MGH under which the Company received exclusive, worldwide rights to make, have made, use, sell, offer for sale, and import products based on patents (currently pending) covering inventions of Dr. Joel Habener pertaining to pancreatic stem cells for treatment of diabetes. In exchange for these rights, as part of this agreement, the Company committed to spend up to \$2,000,000 in the first 18 months of the agreement to achieve a defined set of research objectives which support pre-clinical development of a pancreatic stem cell product for the treatment of diabetes. As of December 31, 2003, the Company had spent approximately \$1,400,000 on this project, and no further financial obligation relating to this commitment will be incurred.

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

Under this agreement, the Company is also obligated to reimburse MGH for patent related costs and an annual license fee of \$30,000 per year until the patents expire in December 2020. In addition, the Company shall pay certain amounts to MGH, contingent upon the achievement of certain milestones as defined in the agreement, totaling a minimum of \$900,000 and shall pay royalties to MGH upon commercial sale of products covered under the license. No royalties were paid in connection with this agreement.

In August 2002, the Company entered into a license agreement with Massachusetts Institute of Technology (MIT) under which the Company receives exclusive, worldwide rights to make, have made, use, sell, offer for sale and import products based on patents (currently pending) pertaining to a novel molecule invented by Dr. Ram Sasisekharan for treatment of neurological disorders, including stroke. In exchange for these rights, the Company has paid an upfront fee of \$50,000 and an annual license fee of \$20,000 for the life of the patents. In addition, the Company shall pay certain amounts to MIT upon the achievement of certain milestones defined in the agreement totaling a maximum of \$500,000 for each licensed product or process and shall pay royalties to MIT upon commercial sale of products covered under the license. No milestone payments were made under this agreement.

The Company has entered into an agreement to provide no more than \$4,000,000 to fund stem cell research and development programs conducted in Singapore. Under this agreement, the government of Singapore reimburses a portion of these expenses under a grant. The Company funded \$1,045,000, \$968,000, and \$527,000 of research and development in Singapore during the years ended December 31, 2004, 2003, and 2002, respectively, and recorded grant revenue of \$287,000, \$252,000 and \$130,000 during the years ended December 31, 2004, 2003, and 2002, respectively.

Effective January 1, 2003, the Company entered into a license agreement with GlaxoSmithKline and Glaxo Group Limited for a nonexclusive license to four specific forms of thrombopoietin mimetics for certain ex vivo uses. In consideration for the license, the Company issued 12,500 shares of its Series I preferred stock as of March 31, 2003 and paid a fee of \$115,000 and \$50,000 license fee in 2004. The value of the Series I preferred stock of \$100,000 was charged to in-process technology. In addition, the Company will be required to make certain milestone payments relating to the clinical development of products that incorporate the technology provided under this license agreement. The Company will be required to pay royalties on the sale of commercial products incorporating the licensed technology. The Company had paid no royalties under this agreement and has accrued \$50,000 in annual license fees as of December 31, 2004.

On July 15, 2003, the Company entered into a license agreement with Gamete Technology, Inc. for the exclusive rights to utilize intellectual property developed by Gamete and MGH in the field of human oocyte cryopreservation and storage. In exchange for these rights, the Company is required to pay certain royalties on preservation and storage revenues from products that incorporate the licensed technology. The Company is also required to spend at least \$2,500,000 to develop this technology during the first eighteen months of the agreement, including fees of approximately \$810,000 payable directly to Gamete under a consulting agreement. As of December 31, 2004, the Company had paid Gamete \$782,000 for consulting services. For the period ended December 31, 2004 the Company expensed \$1,115,000 in the development of human oocyte cryopreservation. No amounts were paid under the royalty provision. As a component of the restructuring charge in September 2004, (see note 14) the Company terminated its agreement with Gamete Technology by paying a termination fee of \$175,000. All monies have been paid and there are no ongoing commitments under this agreement as of December 31, 2004.

In December 2003, the Company entered into a license and collaboration agreement with Amgen Inc., under which it licensed certain stem cell growth factors from Amgen for use in developing and manufacturing cell therapy products, and granted Amgen an option to collaborate on any product or products that incorporate any of those growth factors. There is no limit on the number of such products

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

for which Amgen can exercise its option. Each time Amgen exercises its option, it must partially reimburse the Company for its past development costs on the optioned product (Collaboration Product), share in the future development costs and take primary responsibility for clinical development, regulatory matters, marketing and commercialization of the product through a joint venture with the Company. Amgen must also pay ViaCell a one-time payment for each Collaboration Product following the achievement of the first regulatory approval of the first indication in the United States. Profits and losses arising from the commercialization of Collaboration Products will be shared by Amgen and the Company. The agreement terminates on the later of expiration of the licensed Amgen patents or when no products are being co-developed or jointly commercialized between us and Amgen.

Pursuant to this license and collaboration agreement, Amgen purchased 2,500,000 shares of the Company s Series K convertible preferred stock for proceeds of \$20,000,000, less issuance costs of \$127,000 (see Note 10).

The Company enters into indemnification provisions under its agreements with other companies in the ordinary course of business, typically with business partners, licensors and clinical sites. Under these provisions, the Company generally indemnifies and holds harmless the indemnified party for losses suffered or incurred by the indemnified party as a result of its activities. Certain indemnification provisions survive termination of the underlying agreement. The maximum potential amount of future payments the Company could be required to make under these indemnification provisions is unlimited. However, to date the Company has not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As a result, the estimated fair value of these agreements is minimal. Accordingly, the Company has no liabilities recorded for these agreements as of December 31, 2004 and 2003.

Litigation

PharmaStem Therapeutics, Inc. filed a complaint on February 22, 2002 and an amended complaint on March 25, 2002, against the Company and seven other defendants in the United States District Court for the District of Delaware, alleging infringement of US Patents No. 5,004,681 (681 patent) and No. 5,192,553 (553 patent), which relate to certain aspects of the collection, cryopreservation and storage of hematopoietic stem cells and progenitor cells from umbilical cord blood. The Company counterclaimed that the patents are invalid and unenforceable, and for violation of the antitrust laws resulting from patent misuse, and sought a declaration of non-infringement.

In October 2003, the jury ruled against the Company and the other defendants, and a judgment was entered against the Company for approximately \$2,900,000, based on 6.125% royalties on its revenue from the storage of umbilical cord blood since April 2000. The jury also found that the infringement was willful. The Company placed the amount of the award in an escrow account pending final disposition of this case. The Company also recorded an accrued liability for the amount of the award and an additional \$361,000 related to revenues from October 2003 through December 31, 2003.

On September 15, 2004, the Delaware Court overturned the earlier judgment against ViaCell. The Court ruled that the Company did not infringe the 553 method patent as a matter of law, and ordered a new trial on infringement and damages, if any, related to the 681 composition patent. PharmaStem s motions for an injunction against the Company and the other defendants and for prejudgment and postjudgment interest, as well as enhanced damages and attorneys fees based upon the jury s finding of willful infringement, were denied. The judge also denied the Company s motion challenging the validity and enforceability of the patents. On September 24, 2004, the Company s \$2.9 million escrow payment was released to the Company. On December 14, 2004, the federal district court reversed its post-trial ruling granting a new trial on the issues of infringement and damages (if any) of the second patent and overturned the jury s verdict of infringement of that patent. In its September and December 2004

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

decisions, the judge found that there was no legally sufficient basis for finding infringement of either PharmaStem patent. In August 2004, the U.S. Patent and Trademark Office (US PTO) ordered the re-examination of both patents based on the prior art submitted, with a ruling expected in 2005. With respect to the 681 patent for which a new trial was granted, PharmaStem filed a motion on October 5, 2004 with the court for a preliminary injunction. Also on October 5, 2004, the Company filed a complaint with the Delaware court, alleging antitrust and trade violations by PharmaStem concerning misuse of its patents and other deceptive business practices. The court held a hearing on these motions on November 3, 2004, and denied PharmaStem s motion for a preliminary injunction on December 14, 2004 when it overturned the jury verdict on that patent. On January 6, 2005, PharmaStem filed a Notice of Appeal and a Motion to Expedite the Appeal of the Court s decision. On February 15, 2005 PharmStem s motion to expedite the appeal was denied. PharmaStem s appeal brief was filed on March 22, 2005.

Should the US PTO find the claims of these patents to be unpatentable, then the litigation proceedings between ViaCell and PharmaStem with respect to the unpatentable claims would cease. If the Court s judgment as to non-infringement of the 553 or 681 patent is reversed on appeal, and if the Company is subsequently enjoined from further engaging in its umbilical cord stem cell cryopreservation business, it will not be able to conduct this business unless PharmaStem grants it a license, which PharmaStem previously informed the Company that it would not do after October 15, 2004. While the Company does not believe this outcome is likely, if, in the event of an injunction, it is not able to obtain a license under the disputed patents or operate under an equitable doctrine known as intervening rights, it will be required to stop preserving and storing cord blood and to cease using cryopreserved umbilical cord blood as a source for stem cell products.

PharmaStem also filed a complaint against the Company on July 28, 2004 in the United States District Court for the District of Massachusetts, alleging infringement of US Patents No. 6,461,645 and 6,569,427, which also relate to certain aspects of the collection, cryopreservation and storage of hematopoietic stem cells and progenitor cells from umbilical cord blood. By agreement of the parties, ViaCell responded to the complaint on December 16, 2004. The Company continues to believe that the patents in this new Massachusetts action are invalid and that it does not infringe them in any event. On January 7, 2005, PharmaStem filed a Motion for Preliminary Injunction in the Massachusetts litigation. If this Motion is granted, the Company could be enjoined from collecting and storing cord blood that had not been collected as of the date the injunction is issued while the case is litigated and thereafter if the Company loses the case. The Company believes that the issues presented in PharmaStem s Motion are substantially the same as the issues presented in the Delaware litigation and, while no assurance can be given, the Company believes that PharmaStem s Motion will be denied. If the Company is ultimately found to infringe, it could have a significant damages award entered against it, and it could also face injunctive relief which could prohibit the Company from further engaging in the umbilical cord stem cell business absent a license from PharmaStem on the disputed patents. The Company believes the issues presented in this case are substantially the same as the issues presented in the Delaware litigation. Accordingly, the Company filed a motion to consolidate the Massachusetts case with six other actions against other defendants in a single proceeding in the District of Delaware. On February 16, 2005, the Company s request was granted.

The timing and order of the litigations involving ViaCell and PharmaStem are not presently known. Decisions in the re-examination proceedings, now pending before the US PTO, of the 681 and 553 patents may also affect these factors.

Although it is impossible to predict the final outcome, the Company has substantive defenses to all of PharmaStem s claims, and it intends to continue conducting a vigorous defense. It is possible that the final outcome of these litigations could result in damages payable at a higher or lower amount than previously

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

awarded by the Delaware jury. The Company believes that it is not probable at this time that it will be obligated to pay PharmaStem damages as a result of this litigation.

In addition, the Company may enter into settlement negotiations with PharmaStem regarding its litigation with PharmaStem. If a settlement agreement were entered into, it is not known whether it would provide for a payment by the Company of an ongoing royalty or payment of other amounts by the Company to PharmaStem, or what those amounts might be.

On May 13, 2004, the Company received a First Amended Complaint filed in the Superior Court of the State of California by Kenneth D. Worth, by and for the People of the State of California, and naming as defendants a number of private cord blood banks, including the Company. The complaint alleges that the defendants have made fraudulent claims in connection with the marketing of their cord blood banking services and seeks restitution for those affected by such marketing, injunctive relief precluding the defendants from continuing to abusively and fraudulently market their services and requiring them to provide certain information and refunds to their customers, unspecified punitive and exemplary damages and attorney s fees and costs. Subsequently, the Company received a Notice of Ex Parte Application for Leave to Intervene filed on behalf of the Cord Blood Foundation by the same individual and seeking similar relief. On October 7, 2004, the Court orally granted a motion to strike the complaint under the California anti-SLAPP statute and dismissed the complaint as to all defendants without leave to amend. Judgment has been entered, dismissing the complaint, and plaintiff has filed a notice of appeal and a petition for a writ of mandate. The Company believes that the petition will be summarily dismissed and that the appeal will proceed. The Company is not yet able to conclude as to the likelihood that the plaintiff s claims would be upheld if the judgment of dismissal were reversed on appeal, nor can it estimate the possible financial consequences should the plaintiff prevail. However, the Company believes this suit to be without merit and intends to continue to vigorously defend itself until the judgment becomes final.

On February 24, 2005, Cbr Systems, Inc., a private cord blood banking company, filed a complaint against the Company in the United States District Court for the Northern District of California alleging false and misleading advertising by the Company in violation of the federal Lanham Act and various California statutes and common law and seeking an injunction from continuing such advertising and unspecified damages. The Company is evaluating Cbr s allegations and intends to vigorously defend itself in this action.

The Company periodically becomes subject to legal proceedings and claims arising in connection with its business. With the exception of the PharmaStem complaint noted above, the Company does not believe that there were any asserted claims against it as of December 31, 2004 which, if adversely decided, would have a material adverse effect on results of operations, financial position or cash flow.

Physician Indemnification Program

During September 2004, the Company launched an indemnification program offering protection to physicians from patent litigation actions taken against them by PharmaStem Therapeutics, Inc. Under this program, the Company agrees to pay reasonable defense costs resulting from such litigation, providing that the physicians allow ViaCell to manage their defense. In addition, the Company agrees to indemnify the physicians against all potential financial liability resulting from such litigation, and pay additional remuneration of \$100,000, should PharmaStem prevail in any patent infringement action against the physician. In order to qualify for this indemnification the physicians are required to comply with certain requirements, including returning a signed acknowledgement form regarding the particulars of the indemnification program. The Company has recorded a reserve of \$51,000 associated with this program as of December 31, 2004. The reserve is equal to the estimated fair value of the indemnifications in place at December 31, 2004, in accordance with FASB Interpretation No. 45, *Guarantor s Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others*

ViaCell, Inc.

Notes to Consolidated Financial Statements (Continued)

(FIN 45). The Company has determined the reserve through a probability model based on assumptions related to the likelihood of legal ramifications, and the extent of those ramifications, applicable under this program for the potential professional fees, damages, and remunerations related to the agreements executed as of December 31, 2004. The Company may record additional reserves as more physicians enroll in this program.

Viacord Guarantee Program

Beginning in November 2002, the Company began providing its customers a product guarantee under which the Company agreed to pay \$25,000 to defray the costs associated with the original collection and storage of the cord blood, and procurement of an alternative stem cell source, if medically indicated, in the event that the customer s cord blood (unit) is used in a stem cell transplant and fails to engraft. The Company has never experienced any claims under the guarantee program nor has it incurred costs related to these guarantees. However, the Company does not maintain insurance to cover these potential liabilities and, therefore, maintains reserves to cover these potential liabilities. The Company accounts for the guarantee as a warranty obligation and, accordingly, recognizes the obligation in accordance with the provisions of SFAS No. 5, *Accounting for Contingencies*. The reserve balance is determined by the Company based on the \$25,000 maximum payment multiplied by the number of units covered by the guarantee multiplied by the expected transplant rate multiplied by the expected engraftment failure rate.

The following table summarizes the activities in the accrued product guarantee reserve for the years ended December 31, 2004, and 2003:

	F	or the Years December	
	20	04	2003
Balance at the beginning of the period Accrual for additional units sold during the period		43,000 30,000	\$ 5,000 38,000
Balance at the end of the period	\$ 7	73,000	\$ 43,000

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

10. Redeemable Convertible Preferred Stock, Preferred Stock, and Stockholders Deficit

The Company s redeemable convertible preferred stock is accreted to redemption value through the redemption date and consists of the following as of December 31, 2004 and 2003, respectively:

	Carrying Value	at Decen	ıber 31,
	2004		2003
Series C, \$0.01 par value			
Authorized, issued and outstanding; 919,220 shares	\$ 1,587,467	\$	1,469,871
Series D, \$0.01 par value			
Authorized, issued and outstanding; 1,500,000 shares	3,885,686		3,597,857
Series E, \$0.01 par value			
Authorized, issued and outstanding; 1,983,334 shares	9,171,726		8,492,339
Series F, \$0.01 par value			
Authorized, issued and outstanding; 2,666,666 shares	11,513,685		10,660,819
Series G, \$0.01 par value			
Authorized, issued and outstanding; 3,666,667 shares	15,831,322		14,658,631
Series H, \$0.01 par value			
Authorized, issued and outstanding; 7,577,334 shares	66,459,697		61,515,916
Series I, \$0.01 par value			
Authorized, 5,575,000 shares; issued and outstanding;			
2,062,500, 2,624,854, and 2,624,854 shares at			
December 31, 2002, 2003 and 2004, respectively	25,975,325		24,074,390
Series J, \$0.01 par value			
Authorized, 3,750,000 shares; issued and outstanding;			
2,190,000, and 2,190,000 shares at December 31, 2003			
and 2004, respectively	17,958,127		16,073,828
Series K, \$0.01 par value			
Authorized, issued and outstanding;			
2,500,000, and 2,500,000 shares at December 31, 2003,			
and 2004, respectively	22,789,840		21,597,786
Total redeemable convertible preferred stock	\$ 175,172,875	\$	162,141,437
F-31			
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ViaCell, Inc.

Notes to Consolidated Financial Statements (Continued)

The Company s redeemable convertible preferred stock activity for year to date periods ended December 31, 2002, 2003 and 2004, respectively, consisted of the following:

	Ser	ries C Series D Series E		Series E Series F S		Series F		Series E Series F Series		Series G	
	Shares	Amounts	Shares	Amounts	Shares	Amounts	Shares	Amounts	Shares	Am	
er 31, 2001 e of Shares	919,220	\$ 1,242,271	1,500,000	\$ 3,040,740	1,983,334	\$7,268,522	2,666,666	\$ 9,146,877	3,666,667	\$ 12,5	
on to tion Value		118,726		290,609		594,755		697,585		9	
er 31, 2002 of Shares	919,220	1,360,997	1,500,000	3,331,349	1,983,334	7,863,277	2,666,666	9,844,462	3,666,667	13,5	
on to otion Value		108,874		266,508		629,062		816,357		1,0	
er 31, 2003	919,220	1,469,871	1,500,000	3,597,857	1,983,334	8,492,339	2,666,666	10,660,819	3,666,667	14,6	
e of Shares											
on to otion Value		117,596		287,829		679,387		852,866		1,1	
per 31, 2004	919,220	\$1,587,467	1,500,000	\$ 3,885,686	1,983,334	\$9,171,726	2,666,666	\$11,513,685	3,666,667	\$ 15,8	

	Series H		Series I		Ser	ies J	Seri		
	Shares	Amounts	Shares	Amounts	Shares	Amounts	Shares	Amounts	Total
nce									
mber 31, 2001	7,577,334	\$52,849,978	1,875,000	\$15,162,722					\$101,288
nce of Shares			187,500	1,500,000					1,500
etion to									
mption Value		4,099,367		1,326,718					8,123
•									
nce									
mber 31, 2002	7,577,334	56,949,345	2,062,500	17,989,440					110,911
nce of Shares			562,354	4,498,832	2,190,000	15,622,160	2,500,000	21,597,786	41,718
etion to		1 566 571		1 506 110		151 660			0.510
mption Value		4,566,571		1,586,118		451,668			9,510

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nce									
mber 31, 2003	7,577,334	61,515,916	2,624,854	24,074,390	2,190,000	16,073,828	2,500,000	21,597,786	162,141
nce of Shares									
etion to									
mption Value		4,943,781		1,900,935		1,884,299		1,192,054	13,031
nce									
mber 31, 2004	7,577,334	\$66,459,697	2,624,854	\$25,975,325	2,190,000	\$17,958,127	2,500,000	\$22,789,840	\$175,172

The Company s convertible preferred stock consists of the following as of December 31, 2004 and 2003, respectively:

	2004	2003
Series A, \$0.01 par value		
Authorized, issued and outstanding 100,000 shares (liquidation preference of		
\$100,000 at December 31, 2004 and 2003)	\$ 1,000	\$ 1,000
Series B, \$0.01 par value		
Authorized, issued and outstanding 82,857 shares (liquidation preference of		
\$145,000 at December 31, 2004 and 2003	829	829
Total convertible preferred stock	\$ 1,829	\$ 1,829

The Company s Board of Directors has authorized 30,825,000 shares of \$0.01 par value preferred stock. On June 1, 1999, the Company issued 1,983,334 shares of its Series E convertible preferred stock at \$3.00 per share for total gross proceeds to the Company of approximately \$5,950,000. In connection with

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

the sale, the Company issued warrants to investors to purchase up to 100,000 shares of the Company s common stock at an exercise price of \$1.50 per share.

In connection with the April 2000 merger with Viacord, the Company authorized and issued 2,666,666 shares of \$0.01 par value Series F convertible preferred stock. Upon closing, the Company also issued 3,666,667 shares of \$0.01 par value Series G convertible preferred stock at \$3.00 per share to three venture capital investors in exchange for a total of \$11,000,000.

On November 10, 2000, the Company issued 7,577,334 shares of Series H convertible preferred stock at \$6.38 per share and received proceeds of approximately \$48,200,000, net of \$120,000 of financing costs.

On October 25, 2001, the Company issued 1,875,000 shares of Series I convertible preferred stock for gross proceeds of approximately \$15,000,000, excluding \$79,000 of issuance costs. In addition, the Company may sell and issue an additional 375,000 shares of Series I stock for \$8 per share pursuant to an option agreement dated October 25, 2001.

In January 2002, the Company issued 187,500 shares of Series I preferred stock for an aggregate price of \$1,500,000 upon the exercise of an option. In connection with this exercise, the option holder and the Company mutually agreed to terminate the remaining portion of the option.

In connection with the September 2003 acquisition of Kourion, the Company issued 549,854 shares of \$0.01 par Series I convertible preferred stock. The Company determined the fair value of the Series I preferred stock to be \$8.00 per share. The Company also issued 241,481 shares to an escrow account. These shares will be released either upon a change in control of the company or an underwritten initial public offering of its common stock at a price per share of at least \$9.70 resulting in net proceeds of at least \$50 million. If neither event occurs prior to September 30, 2006, the escrow shares will revert back to the Company.

In September 2003 and October 2003, the Company issued 2,190,000 of its Series J convertible preferred stock for total gross proceeds to the Company of \$17,520,000. The Company incurred approximately \$505,000 of issuance costs related to the Series J offering. The fair value of the Company s Series J convertible preferred stock was determined to be \$8.57 per share. A right to contingent warrants was granted to all purchasers of Series J preferred stock. Upon the earlier to occur of an initial public offering that is not a Qualified Public Offering (an initial public offering at a minimum price of \$9.70 per share in which net proceeds equal or exceed \$50 million) or the three year anniversary of the Initial Closing (September 30, 2006), the Company will issue warrants to the holders of Series J preferred stock for the purchase of Common Stock equal to the number of shares owned of Series J (2,190,000 shares). The initial warrant purchase price will be \$5.00. The warrant price and number of shares purchasable will be adjustable from time to time based on specific criteria to prevent dilution. The right to the contingent warrants had a fair value of approximately \$1,620,000 at the time of grant. The fair value was estimated using a binomial valuation model. The Company recorded the Series J convertible preferred stock and the contingent warrants, at their relative fair values of \$15,622,000 and \$1,390,000, respectively. In January 2005, the Company completed its initial public offering. Since this offering was not a Qualified Public Offering the Company issued the warrants to the holders of Series J preferred stock in February 2005.

In December 2003, in connection with the license and collaboration agreement described in Note 9, the Company issued 2,500,000 of its Series K convertible preferred stock to Amgen at \$8.00 per share for total gross proceeds to the Company of \$20,000,000 and incurred issuance costs of approximately \$127,000. The Company recorded this preferred stock at its determined fair value of \$8.69 per share. The excess of the fair value of the Series I preferred stock over the gross proceeds of \$1,725,000 was allocated to the technology license and was charged to expense as in-process technology.

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

In connection with the shares of Series K convertible preferred stock issued to Amgen and the current PharmaStem litigation, the Company has a side agreement under which Amgen has a one-time option to require the Company to redeem up to 1,250,000 of its Series K shares at a price of \$8.00 per share. This option is triggered upon the occurrence of the earliest of June 23, 2007, a settlement or final judgment against the Company for a total amount exceeding \$30 million (including the initial judgement amount as well as certain royalties, if any, that the Company becomes obligated to pay PharmaStem), or an injunction enjoining the Company s cord blood preservation operations that has not been stayed or vacated. This option expires upon the earliest of the second anniversary of the triggering event, a settlement or final judgment against the Company for a total amount less than or equal to \$30 million (provided that an injunction is not currently in effect at the time), or a public offering of the Company s common stock in which all outstanding shares of convertible preferred stock of the Company automatically convert into common stock. All preferred stock immediately converted to common stock upon the completion of the Company s initial public offering. (see note 16).

The rights and privileges of Series A, B, C, D, E, F, G, H, I, J and K convertible preferred stock are as follows: **Dividends**

The holders of Series H, I, J and K convertible preferred stock are entitled to receive cumulative dividends at a rate of 8 percent per year if, when and as declared by the Company s Board of Directors or upon liquidation, dissolution, or winding-up of the corporation before any dividends can be paid to the common stockholders or any other preferred stock holder.

The holders of Series C, D, E, F and G convertible preferred stock are entitled to receive cumulative dividends declared at a rate of 8 percent per year if, when and as declared by the Company s Board of Directors or upon redemption, dissolution, or winding-up of the corporation before any dividends can be paid to the common stockholders.

Liquidation, Distribution, or Winding-Up

In the event of voluntary or involuntary liquidation, dissolution, or winding-up, the holders of Series A, B, C, D, E, F, G, H, I, J and K convertible preferred stock are entitled to be paid out of the assets available for distribution, in preference to holders of common stock, the greater of (i) an amount equal to \$1.00, \$1.75, \$1.00, \$1.50, \$3.00, \$3.00, \$3.00, \$6.38, \$8.00, \$8.00 and \$8.00 per share, respectively, plus any unpaid dividends declared or (ii) amount per share as would have been payable had each share been convertible into common stock immediately prior to such liquidation, dissolution or winding-up, plus any dividends declared or accrued but unpaid on such common stock. If assets of the Company available for distribution are insufficient for payment, the holders of Series H, I, J and K convertible preferred stock shall be paid first, with Series K holders being fully paid first, the Series J holders being fully paid second, and Series H and I holders being fully paid third. After payment is made in full to the holders of Series H, I, J and K, the holders of Series C, D, E, F and G shall share in distribution ratably in proportion to their aggregate liquidation preference amounts. Remaining funds will be distributed to the Series A and B preferred stockholders before distribution is made to common stockholders.

Voting Rights

Each holder of preferred stock is entitled to the number of votes equal to the number of common stock shares into which such holder s shares of preferred stock are then convertible.

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

Conversion

All shares of preferred stock are convertible at the option of the holder into common stock on a one-for-one basis, adjustable for certain dilutive events, as defined in the Company s Certificate of Incorporation. All outstanding shares of preferred stock will automatically be converted into common stock upon the closing of the sale of shares of common stock at a price per share of at least \$7.00 in a public offering in which the Company receives aggregate gross proceeds of at least \$50,000,000.

Redemption

At the written request of at least 60 percent of the then outstanding shares of Series C, D, E, F, G, H, I, J and K convertible preferred stock made any time on or after November 26, 2007, the Company will redeem each then outstanding share of Series C, D, E, F, G, H, I, J and K convertible preferred stock for an amount equal to the original issue price plus all accumulated and unpaid dividends accrued with respect to each such share since the original issue date of the share. If the funds of the Company available for redemption are insufficient to redeem the total number of shares, the holders of Series H, I, J and K convertible preferred stock shall be paid first; thereafter, the holders of the Series C, D, E, F, and G convertible preferred stock shall share ratably according to the respective amounts they would have been paid.

Common Stock

As of December 31, 2004, the Company has authorized 80,000,000 shares of common stock with a \$0.01 par value each. Each holder of a share of common stock is entitled to one vote for each share held at all meetings of stockholders.

11. Warrants

In November 1997, in connection with the issuance of Series D preferred stock, the Company issued warrants to certain stockholders to purchase 750,000 shares of the Company s common stock at a price per share of \$1.50. These warrants vested 100 percent on the date of grant and are exercisable through November 12, 2007. The value ascribed to these warrants was not material.

In May 1999, in connection with the issuance of Series E preferred stock, the Company issued a warrant to a shareholder to purchase 100,000 shares of the Company s common stock at a price per share of \$1.50. The warrant vested 100 percent on the date of grant and is exercisable through May 21, 2009. The value ascribed to this warrant was not material.

In February 2000, the Company issued a warrant to purchase 13,333 shares of the Company s common stock at an exercise price of \$3.00 per share to a landlord. The warrant vested 100 percent on the date of grant and is exercisable through February 24, 2010. The value ascribed to this warrant was not material.

In April 2002, the Company entered into a license agreement with Amgen Inc. for the nonexclusive license to patent rights covering Amgen s Stem Cell Factor. This agreement was superseded by a license and collaboration agreement entered into by the parties in December 2003. In connection with this agreement, the Company issued a warrant to purchase 560,000 shares of its common stock at an exercise price of \$12 per share. The warrant vested on October 9, 2002 and is exercisable in whole or in part at any time prior to April 9, 2009. The warrant had a fair value of approximately \$5,888,000 at the date of issuance. The fair value of this warrant was estimated at the time of issuance using the Black-Scholes pricing model and assuming a dividend yield of 0 percent, expected volatility of 110 percent, risk-free rate of 4.6 percent and a contractual term of seven years. The Stem Cell Factor technology licensed from Amgen, which is being used in the production process for CB001, our lead product candidate, had not yet

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

achieved technological feasibility and had no alternative future at that time, therefore the Company charged the purchase price of \$5,888,000 to in-process technology expense.

As described in Note 10, the Company issued rights to contingent warrants in September and October 2003. In October 2003, the Company also issued a warrant in connection with debt financing for the purchase of 18,750 shares of Series J preferred stock with an exercise price of \$8.00 per share with a life of 10 years. The Company valued the warrant under a Black-Scholes model deriving a fair market value of approximately \$57,000. The fair value of the warrants issued in September and October 2003 was estimated at the time of issuance using the Black-Scholes pricing model and assuming a dividend yield of 8%, expected volatility of 100%, risk-free rate of 2% and a contractual term of 10 years. The warrant is being amortized under the effective interest method over the term of the related note (Note 8).

12. Stock Option Plan

The ViaCell, Inc. Amended and Restated 1998 Equity Incentive Plan (the Plan), which was adopted on February 12, 1998, provides for the granting of incentive and nonqualified stock options to purchase an aggregate of 4,000,000 shares of common stock to employees, consultants and directors of the Company. In 2002, 2003 and 2004 the Board of Directors increased the number of shares of common stock available for issuance under the Plan to 5,000,000 and 7,200,000, respectively. Incentive stock options may only be granted to employees of the Company. The exercise price of each option is determined by the Board of Directors. The exercise price of each incentive stock option, however, may not be less than the fair market value of the stock on the date of grant, as determined by the Board of Directors.

Options granted under the Plan vest over a period of four years and expire ten years from the grant date. At December 31, 2004, there were 2,245,824 shares available for future grant under the Plan.

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

Information with respect to option activity is as follows:

	Number of Options Authorized	Number of Options Outstanding	Exercise Price	Aggregate ercise Price	Av Ex	ighted erage ercise Price
Outstanding, December 31,						
2001	4,000,000	3,561,008	\$ 0.10-2.00	\$ 3,066,894	\$	0.86
Authorized	1,000,000					
Granted		1,383,468	2.00-5.00	5,407,790		3.91
Exercised		(102,362)	0.10-2.00	(31,343)		0.31
Canceled		(466,362)	0.30-5.00	(816,272)		1.75
Outstanding, December 31, 2002	5,000,000	4,375,752	0.10-5.00	7,627,069		1.74
Authorized	1,000,000	4,575,752	0.10 5.00	1,021,009		1./ 4
Granted	1,000,000	713,436	5.00	3,567,180		5.00
Exercised		(101,280)	0.15-5.00	(54,009)		0.53
Canceled		(282,572)	0.30-5.00	(1,096,129)		3.88
Canceled		(202, 572)	0.50-5.00	(1,0)0,12))		5.00
Outstanding, December 31,						
2003	6,000,000	4,705,336	0.10-5.00	10,044,111		2.13
Authorized	1,200,000	1,705,550	0.10 5.00	10,011,111		2.15
Granted	1,200,000	903,500	5.00	4,517,500		5.00
Exercised		(89,915)	0.30-5.00	(108,568)		1.21
Cancelled		(1,063,383)	0.30-5.00	(4,308,492)		4.03
Outstanding, December 31, 2004	7,200,000	4,455,538	\$ 0.30-5.00	\$ 10,144,551	\$	2.28
Exercisable, December 31, 2002		1,233,069	\$ 0.15-5.00	\$ 719,246	\$	0.58
Exercisable, December 31, 2003		1,806,628	\$ 0.30-5.00	\$ 1,784,266	\$	0.99
Exercisable, December 31, 2004		2,228,710	\$ 0.30-5.00	\$ 3,161,845	\$	1.42

Options Outstanding at December 31, 2004

Options Exercisable at December 31, 2004

Weighted Average

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Exercise Price	Number of Shares	Remaining Contractual Life	Weighted Average Exercise Price		Number of Shares	A Ez	eighted verage xercise Price
\$0.30	1,471,000	5.39	\$	0.30	1,171,000	\$	0.30
0.75	48,950	6.08		0.75	37,775		0.75
0.95	624,092	6.50		0.95	512,758		0.95
2.00	792,588	6.97		2.00	62,590		2.00
4.00	73,175	7.25		4.00	53,021		4.00
5.00	1,445,733	8.89		5.00	391,566		5.00
	4,455,538	7.00	\$	2.28	2,228,710	\$	1.42

The weighted average fair value of options granted in 2004, 2003 and 2002 was \$7.23, \$6.18 and \$6.31, respectively.

In October 2001, ViaCell granted a shareholder, Genzyme, an option, issued outside the Plan, to acquire up to an aggregate of \$3,000,000 of shares of Series I preferred stock or such other series of preferred stock most recently issued by the Company at the time of exercise of the option. One half of the option was exercisable at any time after issuance of the option but prior to its expiration. During 2002,

ViaCell, Inc.

Notes to Consolidated Financial Statements (Continued)

Genzyme exercised the vested portion of this option and purchased 187,500 shares of Series I preferred stock. The Company and Genzyme mutually agreed to terminate the remaining unvested portion of the option.

In September 2004 the Company recorded a stock-based compensation charge of approximately \$774,000 related to the modification of existing grants to severed employees to allow them an additional 90 days to exercise their vested options following termination due to restructuring (Note 14). The impact of the option modification was partially offset by the cancellation of 244,726 unvested options in connection with the restructuring and the reversal of the accelerated amortization expense related to the actual vested shares at the date of termination amounting to \$532,000.

13. Employee Benefit Plan

The Company maintains a qualified 401(k) retirement savings plan (the 401(k) Plan) covering all employees. Under the 401(k) Plan, the participants may elect to defer a portion of their compensation, subject to certain limitations. Company matching contributions may be made at the discretion of the Board of Directors. There have been no discretionary contributions made by the Company to the 401(k) Plan to date.

14. Restructuring

In September 2004, the Company restructured its operations to reduce operating expenses and concentrate its resources on four key products and product candidates, and related business initiatives. These products and product candidates consist of Viacord, Viacyte, CB001 and the cardiac development program. As a result, the Company recorded a \$1.7 million restructuring charge in the third quarter of 2004 related to employee severance, contract termination costs and the write-down of excess equipment. The majority of the contract termination costs relate to the Company exercising the termination provision in its agreement with Gamete Technologies, under which the Company is required to pay \$175,000 to Gamete Technologies. In December 2004, the Company s Board voted to restructure the Company s German operations and sub-let its laboratory facility in Germany to a third party effective January 1, 2005. As a result the Company recorded an additional restructuring charge of \$1.2 million in the fourth quarter of 2004, including facility related costs of \$1.1 million and \$0.1 million related to a contract termination fee. The majority of the facility related costs consisted of the write off of the leasehold improvements and fixed assets in the Company s German facility, as well as the future minimum lease payments related to the facility. The amount of this write off was partially reduced by the minimum future lease payments receivable from the sub-lessee. At December 31, 2004, restructuring charges of \$1.2 million were paid out, the net book value of fixed assets was written down by \$0.9 million and the accrued liability relating to the restructurings was \$0.9 million.

FOOTNOTE DISCLOSURE

	Balance as of December 3 2003		Writedowns]	Payments		dance as of ember 31, 2004
Severance related	\$	\$ 1,315,604	\$	\$	(894,841)	\$	420,763
Contractual terminations	φ	295,833	ψ	φ	(894,841) (290,292)	Ŷ	420,703 5,541
Facility related		1,333,823	(852,831)				480,992
	\$	\$ 2,945,260	\$ (852,831)	\$	(1,185,133)	\$	907,296

ViaCell, Inc. Notes to Consolidated Financial Statements (Continued)

15. Unaudited Quarterly Financial Information

Selected Quarterly Consolidated Financial Data:

	(First Juarter	Second Quarter		Third Quarter		-	Fourth Juarter
		(In	thou	sands, exc	ept	per share o	data)	
Year ended December 31, 2004								
Total revenues	\$	9,019	\$	9,676	\$	9,938	\$	9,641
Gross profit	\$	6,675	\$	11,604	\$	8,099	\$	7,790
Net loss attributable to common stockholders	\$	(10,761)	\$	(5,650)	\$	(9,454)	\$	(8,303)
Net loss per share (basic and diluted)	\$	(4.03)	\$	(2.10)	\$	(3.50)	\$	(3.06)
Year ended December 31, 2003								
Total revenues	\$	6,365	\$	7,196	\$	9,071	\$	9,248
Gross profit	\$	4,755	\$	5,361	\$	7,240	\$	4,125
Net loss attributable to common stockholders	\$	(10,175)	\$	(9,735)	\$	(30,538)	\$	(14,436)
Net loss per share (basic and diluted)	\$	(3.92)	\$	(3.74)	\$	(11.69)	\$	(5.52)

16. Subsequent Event

On January 26, 2005 the Company completed its initial public offering (IPO). The Company issued 8,625,000 shares at \$7.00 per share resulting in net proceeds to the Company of approximately \$53,600,000 after underwriters discounts and offering expenses. As a result of the IPO, all shares of the Company s preferred stock immediately converted into 28,510,952 shares of common stock. On January 26, 2005, the Company paid in full the related party note of \$15,509,760, which included all outstanding principal and interest owed at that date.