- changing relationships with payors, including the various state and multi-state Blues programs, suppliers and strategic partners;
- efforts by third-party payors to reduce utilization and reimbursement for clinical testing services;
- our ability to maintain reimbursement coverage for our products and services, including the *4Kscore* test;
- failure to timely or accurately bill and collect for our services;
- failure in our information technology systems, including cybersecurity attacks or other data security or privacy incidents;
- failure to obtain and retain new clients and business partners, or a reduction in tests ordered or specimens submitted by existing clients;
- failure to establish, and perform to, appropriate quality standards to assure that the highest level of quality is observed in the performance of our testing services;
- failure to maintain the security of patient-related information;
- our ability to obtain and maintain intellectual property protection for our products;
- our ability to defend our intellectual property rights with respect to our products;
- our ability to operate our business without infringing the intellectual property rights of others;
- our ability to attract and retain key scientific and management personnel;
- failure to obtain and maintain regulatory approval outside the U.S.;
- legal, economic, political, regulatory, currency exchange, and other risks associated with international operations; and
- our ability to finance and successfully complete construction of a research, development and manufacturing center in Waterford, Ireland.

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Unless the context otherwise requires, all references in this Quarterly Report on Form 10-Q to

(Unaudited)
(In thousands, except share and per share data)

	For the three months ended March 31,	
	2019	2018
Revenues:		
Revenue from services	$ 178,891	$ 211,315
Revenue from products	25,301	27,851
Revenue from transfer of intellectual property and other	18,259	15,748
Total revenues	222,451	254,914
Costs and expenses:		
Cost of service revenue	129,903	139,441
Cost of product revenue	14,156	14,648
Selling, general and administrative	95,158	91,519
Research and development	36,529	32,887
Contingent consideration	4,806	1,759
Amortization of intangible assets	16,562	

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(Unaudited)
(In thousands)

	For the three months ended March 31,	
	2019	2018
Net loss	$ (80,762)	$ (43,114)
Other comprehensive incomt		

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We are a diversified healthcare company that seeks to establish industry-leading positions in large and rapidly growing medical markets. Our diagnostics business includes BioReference Laboratories, Inc. (“BioReference”), the nation’s third-largest clinical laboratory with a core genetic testing business and an almost 300-person sales and marketing team to drive growth and leverage new products, including the *4Kscore* prostate cancer test. Our pharmaceutical business features *Rayaldee*, an FDA-approved treatment for secondary hyperparathyroidism (“SHPT”) in adults with stage 3 or 4 chronic kidney disease (“CKD”) and vitamin D insufficiency (launched in November 2016); OPK88004, a selective androgen receptor modulator which we are exploring for various potential indications; and OPK88003, a once or twice weekly oxyntomodulin for type 2 diabetes and obesity which is a clinically advanced drug candidate among the new class of GLP-1 glucagon receptor dual agonists (phase 2b). Our pharmaceutical business also features hGH-CTP, a once-weekly human growth hormone injection (in phase 3 and partnered with Pfizer). We are incorporated in Delaware and our principal executive offices are located in leased offices in Miami, Florida.

Through BioReference, we provide laboratory testing services, primarily to customers in the larger metropolitan areas across New York, New Jersey, Maryland, Pennsylvania, Delaware, Washington, DC, Florida, California, Texas, Illinois and Massachusetts as well as to customers in a number of other states. We offer a comprehensive test menu of clinical diagnostics for blood, urine, and tissue analysis. This includes hematology, clinical chemistry, immunoassay, infectious diseases, serology, hormones, and toxicology assays, as well as Pap smear, anatomic pathology (biopsies) and other types of tissue analysis. We market our laboratory testing services directly to physicians, geneticists, hospitals, clinics, correctional and other health facilities.

We operate established pharmaceutical platforms in Ireland, Chile, Spain, and Mexico, which are generating revenue and which we expect to facilitate future market entry for our products currently in development. In addition, we have a development and commercial supply pharmaceutical company and a global supply chain operation and holding company in Ireland. We own a specialty active pharmaceutical ingredients (“APIs”) manufacturer in Israel, which we expect will facilitate the development of our pipeline of molecules and compounds for our molecular diagnostic and therapeutic products.

Our research and development activities are primarily performed at facilities in Miramar, FL, Woburn, MA, Waterford, Ireland, Kiryat Gat, Israel, and Barcelona, Spain.

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benefits of our intangible assets are consumed or otherwise used up. Amortization expense was $16.6 million and $17.3 million for the three months ended March 31, 2019 and 2018, respectively.

Fair value measurements. The carrying amounts of our cash and cash equivalents, accounts receivable, accounts payable and short-term debt approximate their fair value due to the short-term maturities of these instruments. Investments that are considered equity securities as of March 31, 2019 and December 31, 2018 are predominately carried at fair value. Our debt under the credit agreement with JPMorgan Chase Bank, N.A. approximates fair value due to the variable rate of interest.

In evaluating the fair value information, considerable judgment is required to interpret the market data used to develop the estimates. The use of different market assumptions and/or different valuation techniques may have a material effect on the estimated fair value amounts. Accordingly, the estimates of fair value presented herein may not be indicative of the amounts that could be realized in a current market exchange. Refer to Note 8.

Contingent consideration. Each period we revalue the contingent consideration obligations associated with certain prior acquisitions to their fair value and record increases in the fair value as contingent consideration expense and decreases in the fair value as a reduction in contingent consideration expense. Changes in contingent consideration result from changes in the assumptions regarding probabilities of successful achievement of related milestones, the estimated timing in which the milestones are achieved and the discount rate used to estimate the fair value of the liability. Contingent consideration may change significantly as our development programs progress, revenue estimates evolve and additional data is obtained, impacting our assumptions. The assumptions used in estimating fair value require significant judgment. The use of different assumptions and judgments could result in a materially different estimate of fair value which may have a material impact on our results from operations and financial position.

Derivative financial instruments. We record derivative financial instruments on our Condensed Consolidated Balance Sheet at their fair value and recognize the changes in the fair value in our Condensed Consolidated Statement of Operations when they occur, the only exception being derivatives that qualify as hedges. For the derivative instrument to qualify as a hedge, we are required to meet strict hedge effectiveness and contemporaneous documentation requirements at the initiation of the hedge and assess the hedge effectiveness on an ongoing basis over the life of the hedge. At March 31, 2019 and December 31, 2018, our foreign currency forward contracts held to economically hedge inventory purchases did not meet the documentation requirements to be designated as hedges. Accordingly, we recognize all changes in the fair values of our derivatives instruments, net, in our Condensed Consolidated Statement of Operations. Refer to Note 9.

Property, plant and equipment. Property, plant and equipment are recorded at cost. Depreciation is provided using the straight-line method over the estimated useful lives of the assets and includes amortization expense for assets capitalized under finance leases. The estimated useful lives by asset class are as follows: software - 3 years, machinery, medical and other equipment - 5-8 years, furniture and fixtures - 5-12 years, leasehold improvements - the lesser of their useful life or the lease term, buildings and improvements - 10-40 years, and automobiles - 3-5 years. Expenditures for repairs and maintenance are charged to expense as incurred. Depreciation expense was $7.3 million and $7.5 million for the three months ended March 31, 2019 and 2018, respectively. Assets held under finance leases are included within Property, plant and equipment, net in our Condensed Consolidated Balance Sheet and are amortized over the shorter of their useful lives or the expected term of their related leases.

Impairment of long-lived assets. Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a compais to e revto

three months ended March 31, 2019, the tax rate differed from the U.S. federal statutory rate of

In February 2018, the FASB issued ASU No. 2018-02, "18

warrants to purchase additional shares of COCP, InCellDx, Inc., Xenetic, and Phio, respectively. We recorded the changes in the fair value of the options and warrants in Fair value changes of derivative instruments, net in our Condensed Consolidated Statement of Operations. We also recorded the fair value of the options and warrants in Investments, net in our Condensed Consolidated Balance Sheet. See further discussion of the Company's options and wR

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In Februa

From 2013 to 2016, holders of the 2033 Senior Notes converted $143.2 million in aggregate princ

In addition to the Credit Agreement with CB, we have line of credit agreements witheleven other financial institutions as of March 31, 2019 and December 31, 2018 in the U.S., Chile and Spain. These lines of credit are used primarily as a source of working capital for inventory purchases.

The following table summarizes the amounts outstanding under the BioReference, Chilean and Spanish lines of credit:

(Dollars in thousands)			Balance Outstanding	
Lender	Interest rate on borrowings at March 31, 2019	Credit line capacity	March 31, 2019	December 31, 2018
JPMorgan Chase	4.15%	$ 175,000	$ 105,280	$ 105,198
Itau Bank	5.50%	1,810	594	232
Bank of Chile	6.60%	3,800	844	432
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The following table summarizes the fair values and the presentation of our derivative assets (liabilities) in the Condensed Consolidated Balance Sheets:

(In thousands)	Balance Sheet Component	March 31, 2019	December 31, 2018
Derivative financial instruments:			
Common Stock options/warrants	Investments, net	$ 888	$ 83

The Company owns approximately 9% of Pharmsynthez and Pharmsynthez is Xenetic's largest and controlling stockholder. Dr. Richard Lerner, a director of the Company, is a co-inventor of the technology and will receive shares of Xenetic if certain Xenetic transactions close. Adam Logal, our Senior Vice President and Chief Financial Officer, is a director of Xenetic.

On November 8, 2018, we entered into stock purchase agreements with certain investors pursuant to which we agreed to sell to such investors in private placements an aggregate of approximately 26.5 million shares of our Common Stock (the "Shares") at a purchase price of $3.49 per share, which was the closing bid price of our Common Stock on the NASDAQ on such date, for an aggregate purchase price of $92.5 million. The investors in the private placements include an affiliate of Dr. Frost ($70 million), and Dr. Hsiao ($2 million).

On November 8, 2018, we entered into a credit agreement with an affiliate of Dr. Frost, pursuant to which the lender committed to provide us with an unsecured line of credit in the amount of $6

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research and development funding would result in revenues or an offset to research and development expenses in accordance with provisions of gross or net revenue presentation. The corresponding revenues or offset to research and development expenses are recognized as the related performance obligations are satisfied.

Sales-based Milestone and Royalty Payments: Our customers may be required to pay us sales-based milestone payments or royalties on future sales of commercial products. We recognize revenues related to sales-based milestone and royalty payments upon the later to occur of (i) achievement of the customer's underlying sales or (ii) satisfaction of any performance obligation(s) related to these sales, in each case assuming the license to our intellectual property is deemed to be the predominant item to which the sales-based milestones and/or royalties relate.

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On December 27, 2018, we announced that both the Company and Dr. Frost, entered into settlement agreements with the Securities and Exchange Commission (the "Commission"), subject to court approval, resolving the complaint filed by the Commission against the Company and Dr. Frost in the U.S. District Court for the Southern District of New York on September 7, 2018. Pursuant to the settlement, and without admitting or denying any of the allegations of the Complaint, the Company is enjoined from violating Section 13(d) of the Exchange Act and paid a $100,000 penalty. Liability under Section 13(d) can be established without any showing of wrongful intent or negligence. The settlement was approved by the Court in January 2019.

(In thousands)	For the three months ended March 31, 2019	2018	Change
Revenue from services	$ 178,891	$ 211,315	$ (32,424)
Revenue from products	25,301	27,851	(2,550)
Revenue from transfer of intellectual property and other	18,259	15,748	2,511
Total revenues	$ 222,451	$ 254,914	$ (32,463)

Revenue from services for the three months ended March 31, 2019 decreased approximately $32.4 million compared to the three months ended March 31, 2018. Revenue from services for the three months ended March 31, 2019 was negatively affected by decreased reimbursement from our clinical testing of $20.1 million as a result of the Protecting Access to Medicare Act of 2014 ("PAMA") and an increase in denial rates and changes to procedural requirements and by decreased reimbursement from our genomics testing of $15.6 million as a result of an increase in denial rates and changes to procedural requirements. Revenue from services for the three months ended March 31, 2019 were also negatively affected by $3.4 million as a result of a reduction in clinical test volumes resulting from one less business day compared to the prior year, which was partially offset by higher volume in our genomics testing of $6.8 million.

Estimated collection amounts are subject to the complexities and ambiguities of billing, reimbursement regulations and claims processing, as well as issues unique to Medicare and Medicaid programs, and require us to consider the potential for retroactive adjustments when estimating variable consideration in the recognition of revenue in the period the related services are rendered. For the three months ended March 31, 2019 and 2018, revenue reductions due to changes in estimates of implicit price concessions for performance obligations satisfied in prior periods of $8.4 million and $15.7 million, respectively, were recognized.

The composition of Revenue from services by payor for the three months ended March 31, 2019 and 2018 is as follows:

(In thousands)	Three months ended March 31, 2019	2018
Healthcare insurers	$ 105,878	$ 132,253
Government payers	29,510	35,190
Client payers	38,422	38,032
Patients	5,081	5,840
Total	$ 178,891	$ 211,315

The decrease in Revenue from products is primarily attributable to a decrease in revenue at OPKO Chile, which was partially offset by an increase in sales of *Rayaldee*. Revenue from transfer of intellectual property for the three months ended March 31, 2019 and 2018 principally reflects $17.4 million and $14.7 million, respectively, [illegible] March 31,

expense for the three months ended March 31, 2019 is primarily due to interest incurred on the 2025 Notes an

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In the normal course of doing business, we are exposed to the risks associated with foreign currency exchange rates and changes in interest rates.

Foreign Currency Exchange Rate Risk – We operate globally and, as such, we are subject to foreign exchange risk in our commercial operations as portions of our revenues are exposed to changes in foreign currency exchange rates, primarily the Chilean Peso, the Mexican Peso, the Euro and the New Israeli Shekel.

Although we do not speculate in the foreign exchange market, we may from time to time manage exposures that arise in the normal course of business reli cur

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, have evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this Quarterly Report on Form 10-Q. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the rules and forms of the Securities and Exchange Commission. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Based on this evaluation, management concluded that our disclosure controls and procedures were effective as of March 31, 2019.

Changes to the Company's Internal Control Over Financial Reporting

We have implemented new controls as part of our effort to adopt Accounting Standards Update ("ASU") No. 2016-02, "Leases (Topic 842)". The adoption of the ASU required the implementation of new accounting processes which necessitated changes to our internal controls over financial reporting.

These changes to the Company's internal control over financial reporting that occurred since the beginning of 2019 have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

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None.

None.

None.

Not Applicable.

None.

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AMENDMENT NO. 8 TO CREDIT AGREEMENT (this "Amendment"), dated as of February 26, 2019, is entered into among BIO-REFERENCE LABORATORIES, INC., a New Jersey corporation ("Company"), the Subsidiary Borrowers party hereto ("Subsidiary Borrowers

(e) No Novation or Mutual N‡ ‰ l’ ®

IN WITNESS WHEREOF, the Borrowers, the othe Ed

Exhibit 32.1

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, I, Phillip Frost, Chief Executive Officer of OPKO Health, Inc. (the "Company"), hereby certify that:

The Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2019

/s/ Phillip Frost, M.D.

Phillip Frost, M.D.
Chief Executive Officer

Exhibit 32.2

Pursuant to 18 U.S.C. Section 1350, as adopted pursuant Section 906 of the Sarbanes-Oxley Act of 2002, I, Adam Logal, Chief Financial Officer of OPKO Health, Inc. (the "Company"), hereby certify that:

The Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2019 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 7, 2019

/s/ Adam Logal

Adam Logal

Senior Viceia icnthe