# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION

**Washington, D.C. 20549**

# FORM 10-Q

**(Mark One)**

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

**For the quarterly period ended December 31, 2018**

**OR**

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

**For the transition period from _____ to _____**

**Commission File Number 001-36415**

# QUOTIENT LIMITED

**(Exact name of registrant as specified in its charter)**

| | |
|---|---|
| **Jersey, Channel Islands**<br>**(State or other jurisdiction of incorporation or organization)** | **Not Applicable**<br>**(I.R.S. Employer Identification No.)** |
| **B1, Business Park Terre Bonne,**<br>**Route de Crassier 13,**<br>**1262 Eysins, Switzerland**<br>**(Address of principal executive offices)** | **Not Applicable**<br>**(Zip Code)** |

**011-41-22-716-9800**
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 filer | ☐ | Accelerated filer | ☒ |
| Non-accelerated filer | ☐ | Smaller reporting company | ☐ |
| Emerging growth company | ☒ | | |

If 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 13(a) of the Exchange Act. ☒

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

As of February 5, 2019, there were 65,031,492 Ordinary Shares, nil par value, of Quotient Limited outstanding.

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**Cautionary note regarding forward-looking statements**

This Quarterly Report on Form 10-Q, and exhibits thereto, contains estimates, predictions, opinions, projections and other statements that may be interpreted as "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that involve substantial risks and uncertainties. The forward-looking statements are contained principally in Part I, Item 2: "Management's Discussion and Analysis of Financial Condition and Results of Operations" and are also contained elsewhere in this Quarterly Report. Forward-looking statements can be identified by words such as "strategy," "objective," "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," "contemplate," "might," "design" and other similar expressions, although not all forward-looking statements contain these identifying words. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report, we caution you that these statements are based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain, and are subject to numerous known and unknown risks and uncertainties.

Forward-looking statements include statements about:

- the development, regulatory approval and commercialization of MosaiQ™;
- the design of blood grouping and disease screening capabilities of MosaiQ and the benefits of MosaiQ for both customers and patients;
- future demand for and customer adoption of MosaiQ, the factors that we believe will drive such demand and our ability to address such demand;
- our expected profit margins for MosaiQ;
- the size of the market for MosaiQ;
- the regulation of MosaiQ by the U.S. Food and Drug Administration, or the FDA, or other regulatory bodies, or any unanticipated regulatory changes or scrutiny by such regulators;
- future plans for our conventional reagent products;
- the status of our future relationships with customers, suppliers, and regulators relating to our conventional reagent products;
- future demand for our conventional reagent products and our ability to meet such demand;
- our ability to manage the risks associated with international operations;
- anticipated changes, trends and challenges in our business and the transfusion diagnostics market;
- the effects of competition;
- the expected outcome or impact of litigation;
- our ability to protect our intellectual property and operate our business without infringing upon the intellectual property rights of others;
- our anticipated cash needs, including the adequacy of our cash and short-term investment balances relative to our forecasted cash requirements for the next twelve months, and our expected sources of funding, including proceeds from the issuance of additional 12% Senior Secured Notes due 2024, or the Secured Notes, and our estimates regarding our capital requirements and capital expenditures; and
- our plans for executive and director compensation for the future.

You should also refer to the various factors identified in this and other reports filed by us with the Securities and Exchange Commission, including but not limited to those discussed in the section entitled "Risk Factors" in our Annual Report on Form 10-K for the year ended March 31, 2018, for a discussion of other important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. As a result of these factors, we cannot assure you that the forward-looking statements in this Quarterly Report will prove to be accurate. Further, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us that we will achieve our objectives and plans in any specified time frame, or at all. The forward-looking statements in this Quarterly Report represent our views only as of the date of this Quarterly Report. Subsequent events and developments may cause our views to change. While we may elect to update these forward-looking statements at some point in the future, we undertake no obligation to publicly update any forward-looking statements, except as required by law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this Quarterly Report.

**Where you can find more information**

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission. You can inspect, read and copy these reports, proxy statements and other information at the Securities and Exchange Commission's Public Reference Room, which is located at 100 F Street, N.E., Washington, D.C. 20549. You can obtain information regarding the operation of the Securities and Exchange Commission's Public Reference Room by calling the Securities and Exchange Commission at 1-800-SEC-0330. The Securities and Exchange Commission also maintains a website at www.sec.gov that makes available reports, proxy statements and other information regarding issuers that file electronically.

We make available free of charge at *www.quotientbd.com* (in the "Investors" section) copies of materials we file with, or furnish to, the Securities and Exchange Commission. By referring to our corporate website, *www.quotientbd.com*, we do not incorporate any such website or its contents into this Quarterly Report on Form 10-Q.

**PART I – FINANCIAL INFORMATION**

**Item 1. Financial Statements**

**CONDENSED CONSOLIDATED BALANCE SHEETS (unaudited)**
(Expressed in thousands of U.S. Dollars — except for share data and per share data)

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| **ASSETS** | | |
| **Current assets:** | | |
| Cash and cash equivalents | $ 4,468 | $ 20,165 |
| Short-term investments | 103,202 | 5,669 |
| Trade accounts receivable, net | 2,356 | 2,862 |
| Inventories | 15,306 | 16,278 |
| Prepaid expenses and other current assets | 2,678 | 7,065 |
| **Total current assets** | 128,010 | 52,039 |
| Restricted cash | 7,510 | 5,040 |
| Property and equipment, net | 49,286 | 60,156 |
| Intangible assets, net | 759 | 914 |
| Deferred income taxes | 616 | 649 |
| Other non-current assets | 4,584 | 5,043 |
| **Total assets** | $ 190,765 | $ 123,841 |
| **LIABILITIES AND SHAREHOLDERS' EQUITY (DEFICIT)** | | |
| **Current liabilities:** | | |
| Accounts payable | $ 2,996 | $ 5,441 |
| Accrued compensation and benefits | 4,337 | 5,312 |
| Accrued expenses and other current liabilities | 10,390 | 15,340 |
| Current portion of deferred lease rental benefit | 440 | 443 |
| Current portion of capital lease obligation | 469 | 515 |
| **Total current liabilities** | 18,632 | 27,051 |
| Long-term debt, less current portion | 120,044 | 85,063 |
| Deferred lease rental benefit, less current portion | 1,056 | 443 |
| Capital lease obligation, less current portion | 943 | 1,422 |
| Defined benefit pension plan obligation | 6,322 | 6,168 |
| 7% Cumulative redeemable preference shares | 19,113 | 18,325 |
| **Total liabilities** | 166,110 | 138,472 |
| Commitments and contingencies | — | — |
| **Shareholders' equity (deficit):** | | |
| Ordinary shares (nil par value) 64,972,552 and 45,646,424 issued and outstanding at December 31, 2018 and March 31, 2018 respectively | 367,679 | 253,934 |
| Additional paid in capital | 27,284 | 23,708 |
| Accumulated other comprehensive loss | (15,877) | (16,634) |
| Accumulated deficit | (354,431) | (275,639) |
| **Total shareholders' equity (deficit)** | 24,655 | (14,631) |
| **Total liabilities and shareholders' equity (deficit)** | $ 190,765 | $ 123,841 |

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

**CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (unaudited)**
(Expressed in thousands of U.S. Dollars — except for share data and per share data)

| | Quarter ended December 31, | | Nine months ended December 31, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| **Revenue:** | | | | |
| Product sales | $ 6,723 | $ 5,653 | $ 20,834 | $ 17,789 |
| Other revenues | — | 206 | 19 | 806 |
| **Total revenue** | 6,723 | 5,859 | 20,853 | 18,595 |
| Cost of revenue | (4,186) | (2,325) | (12,803) | (7,943) |
| **Gross profit** | 2,537 | 3,534 | 8,050 | 10,652 |
| **Operating expenses:** | | | | |
| Sales and marketing | (2,233) | (1,910) | (6,359) | (5,461) |
| Research and development, net of government grants | (11,788) | (11,929) | (37,356) | (37,944) |
| General and administrative expense: | | | | |
| Compensation expense in respect of share options and management equity incentives | (1,073) | (986) | (3,576) | (3,458) |
| Other general and administrative expenses | (6,471) | (5,804) | (19,388) | (15,851) |
| Total general and administrative expense | (7,544) | (6,790) | (22,964) | (19,309) |
| **Total operating expense** | (21,565) | (20,629) | (66,679) | (62,714) |
| **Operating loss** | (19,028) | (17,095) | (58,629) | (52,062) |
| **Other income (expense):** | | | | |
| Interest expense, net | (5,679) | (3,249) | (14,614) | (11,656) |
| Other, net | (1,536) | 33 | (5,516) | 1,478 |
| **Other expense, net** | (7,215) | (3,216) | (20,130) | (10,178) |
| **Loss before income taxes** | (26,243) | (20,311) | (78,759) | (62,240) |
| Provision for income taxes | (11) | — | (33) | — |
| **Net loss** | $ (26,254) | $ (20,311) | $ (78,792) | $ (62,240) |
| **Other comprehensive income (loss):** | | | | |
| Change in fair value of effective portion of foreign currency cash flow hedges | $ 41 | $ (64) | $ (320) | $ 409 |
| Change in unrealized gain on short-term investments | 169 | (7) | 416 | 25 |
| Foreign currency gain (loss) | (176) | (168) | 554 | 1,144 |
| Provision for pension benefit obligation | 35 | 45 | 107 | 132 |
| **Other comprehensive income (loss), net** | 69 | (194) | 757 | 1,710 |
| **Comprehensive loss** | $ (26,185) | $ (20,505) | $ (78,035) | $ (60,530) |
| Net loss available to ordinary shareholders - basic and diluted | $ (26,254) | $ (20,311) | $ (78,792) | $ (62,240) |
| Loss per share - basic and diluted | $ (0.46) | $ (0.47) | $ (1.53) | $ (1.58) |
| Weighted-average shares outstanding - basic and diluted | 56,619,356 | 43,353,506 | 51,512,352 | 39,274,570 |

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

**CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (DEFICIT) (unaudited)**
(Expressed in thousands of U.S. Dollars — except for share data)

| | Ordinary shares | | Additional paid in capital | Accumulated Other Comprehensive Loss | Accumulated Deficit | Total Shareholders' Equity (Deficit) |
|---|---|---|---|---|---|---|
| | Shares | Amount | | | | |
| **September 30, 2018** | 54,229,503 | $ 303,176 | $ 26,211 | $ (15,946) | $ (328,177) | $ (14,736) |
| Issue of shares, net of issue costs of $4,497 | 10,615,385 | 64,503 | — | — | — | 64,503 |
| Issue of shares upon exercise of incentive share options and vesting of RSUs | 127,664 | — | — | — | — | — |
| Net loss | — | — | — | — | (26,254) | (26,254) |
| Change in the fair value of the effective portion of foreign currency cash flow hedges | — | — | — | 41 | — | 41 |
| Unrealized gain on short-term investments | — | — | — | 169 | — | 169 |
| Foreign currency gain (loss) on: | | | | | | |
| Long-term investment nature intra-entity balances | — | — | — | 3,399 | — | 3,399 |
| Retranslation of foreign entities | — | — | — | (3,575) | — | (3,575) |
| Provision for pension benefit obligation | — | — | — | 35 | — | 35 |
| Other comprehensive loss | — | — | — | 69 | — | 69 |
| Stock-based compensation | — | — | 1,073 | — | — | 1,073 |
| **December 31, 2018** | 64,972,552 | $ 367,679 | $ 27,284 | $ (15,877) | $ (354,431) | $ 24,655 |

| | Ordinary shares | | Additional paid in capital | Accumulated Other Comprehensive Loss | Accumulated Deficit | Total Shareholders' Equity (Deficit) |
|---|---|---|---|---|---|---|
| | Shares | Amount | | | | |
| **March 31, 2018** | 45,646,424 | $ 253,934 | $ 23,708 | $ (16,634) | $ (275,639) | $ (14,631) |
| Issue of shares, net of issue costs of $4,497 | 19,085,068 | 113,723 | — | — | — | 113,723 |
| Issue of shares upon exercise of incentive share options and vesting of RSUs | 241,060 | 22 | — | — | — | 22 |
| Net loss | — | — | — | — | (78,792) | (78,792) |
| Change in the fair value of the effective portion of foreign currency cash flow hedges | — | — | — | (320) | — | (320) |
| Unrealized gain on short-term investments | — | — | — | 416 | — | 416 |
| Foreign currency gain (loss) on: | | | | | | |
| Long-term investment nature intra-entity balances | — | — | — | 10,848 | — | 10,848 |
| Retranslation of foreign entities | — | — | — | (10,294) | — | (10,294) |
| Provision for pension benefit obligation | — | — | — | 107 | — | 107 |
| Other comprehensive loss | — | — | — | 757 | — | 757 |
| Stock-based compensation | — | — | 3,576 | — | — | 3,576 |
| **December 31, 2018** | 64,972,552 | $ 367,679 | $ 27,284 | $ (15,877) | $ (354,431) | $ 24,655 |

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

**CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY (DEFICIT) (unaudited)**
(Expressed in thousands of U.S. Dollars — except for share data)

| | Ordinary shares | | Additional paid in capital | Accumulated Other Comprehensive Loss | Accumulated Deficit | Total Shareholders' Equity (Deficit) |
|---|---|---|---|---|---|---|
| | Shares | Amount | | | | |
| **September 30, 2017** | 37,694,531 | $ 217,883 | $ 18,357 | $ (17,388) | $ (235,230) | $ (16,378) |
| Issue of Shares , net of Issue Costs of $445 | 7,864,683 | 36,047 | — | — | — | 36,047 |
| Issue of shares upon exercise of incentive share options and vesting of RSUs | 28,717 | 4 | — | — | — | 4 |
| Issue of warrants | — | — | 3,667 | — | — | 3,667 |
| Net loss | — | — | — | — | (20,311) | (20,311) |
| Change in the fair value of the effective portion of foreign currency cash flow hedges | — | — | — | (64) | — | (64) |
| Unrealized gain on short-term investments | — | — | — | (7) | — | (7) |
| Foreign currency gain (loss) on: | | | | | | |
| Long-term investment nature intra-entity balances | — | — | — | (2,133) | — | (2,133) |
| Retranslation of foreign entities | — | — | — | 1,965 | — | 1,965 |
| Provision for pension benefit obligation | — | — | — | 45 | — | 45 |
| Other comprehensive loss | — | — | — | (194) | — | (194) |
| Stock-based compensation | — | — | 986 | — | — | 986 |
| **December 31, 2017** | 45,587,931 | $ 253,934 | $ 23,010 | $ (17,582) | $ (255,541) | $ 3,821 |

| | Ordinary shares | | Additional paid in capital | Accumulated Other Comprehensive Loss | Accumulated Deficit | Total Shareholders' Equity (Deficit) |
|---|---|---|---|---|---|---|
| | Shares | Amount | | | | |
| **March 31, 2017** | 29,567,698 | $ 172,617 | $ 15,885 | $ (19,292) | $ (193,301) | $ (24,091) |
| Issue of shares, net of issue costs of $680 | 15,914,683 | 81,206 | — | — | — | 81,206 |
| Issue of shares upon exercise of incentive share options and vesting of RSUs | 105,550 | 111 | — | — | — | 111 |
| Issue of warrants | — | — | 3,667 | — | — | 3,667 |
| Net loss | — | — | — | — | (62,240) | (62,240) |
| Change in the fair value of the effective portion of foreign currency cash flow hedges | — | — | — | 409 | — | 409 |
| Unrealized gain on short-term investments | — | — | — | 25 | — | 25 |
| Foreign currency gain (loss) on: | | | | | | |
| Long-term investment nature intra-entity balances | — | — | — | (6,922) | — | (6,922) |
| Retranslation of foreign entities | — | — | — | 8,066 | — | 8,066 |
| Provision for pension benefit obligation | — | — | — | 132 | — | 132 |
| Other comprehensive loss | — | — | — | 1,710 | — | 1,710 |
| Stock-based compensation | — | — | 3,458 | — | — | 3,458 |
| **December 31, 2017** | 45,587,931 | $ 253,934 | $ 23,010 | $ (17,582) | $ (255,541) | $ 3,821 |

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

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (unaudited)**
(Expressed in thousands of U.S. Dollars)

| | Nine months ended December 31, | |
|---|---|---|
| | **2018** | **2017** |
| ***OPERATING ACTIVITIES:*** | | |
| **Net loss** | $ (78,792) | $ (62,240) |
| **Adjustments to reconcile net loss to net cash provided by operating activities:** | | |
| Depreciation and amortization | 9,503 | 7,678 |
| Share-based compensation | 3,576 | 3,458 |
| Increase in (amortization of) deferred lease rental benefit | 266 | (324) |
| Swiss pension obligation | 453 | 494 |
| Amortization of deferred debt issue costs | 4,097 | 3,383 |
| Accrued preference share dividends | 788 | 788 |
| Deferred income taxes | 33 | — |
| **Net change in assets and liabilities:** | | |
| Trade accounts receivable, net | 315 | 681 |
| Inventories | 147 | (2,347) |
| Accounts payable and accrued liabilities | (5,076) | (4,066) |
| Accrued compensation and benefits | (664) | (886) |
| Other assets | 3,833 | 456 |
| **Net cash used in operating activities** | (61,521) | (52,925) |
| ***INVESTING ACTIVITIES:*** | | |
| Increase in short-term investments | (119,000) | (78,000) |
| Realization of short-term investments | 21,883 | 66,403 |
| Purchase of property and equipment | (3,047) | (17,343) |
| Purchase of intangible assets | (3) | (68) |
| **Net cash used in investing activities** | (100,167) | (29,008) |
| ***FINANCING ACTIVITIES:*** | | |
| Repayment of finance leases | (358) | (135) |
| Proceeds from drawdown of new debt | 36,000 | — |
| Debt issuance costs and fees paid to noteholders | (5,113) | — |
| Proceeds from issuance of ordinary shares and warrants | 113,745 | 84,985 |
| Net cash generated from financing activities | 144,274 | 84,850 |
| Effect of exchange rate fluctuations on cash, cash equivalents and restricted cash | 4,187 | (1,521) |
| Change in cash, cash equivalents and restricted cash | (13,227) | 1,396 |
| Beginning cash, cash equivalents and restricted cash | 25,205 | 9,794 |
| Ending cash, cash equivalents and restricted cash | $ 11,978 | $ 11,190 |
| **Supplemental cash flow disclosures:** | | |
| Income taxes paid | $ — | $ — |
| Interest paid | $ 11,435 | $ 5,068 |
| Reconciliation of cash, cash equivalents and restricted cash: | | |
| Cash and cash equivalents | $ 4,468 | $ 6,150 |
| Restricted cash | 7,510 | 5,040 |
| Total cash, cash equivalents and restricted cash | $ 11,978 | $ 11,190 |

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

## Note 1. Description of Business and Basis of Presentation

### *Description of Business*

The principal activity of Quotient Limited (the "Company") and its subsidiaries (the "Group") is the development, manufacture and sale of products for the global transfusion diagnostics market. Products manufactured by the Group are sold to hospitals, blood banking operations and other diagnostics companies worldwide.

### *Basis of Presentation*

The condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") and are unaudited. In accordance with those rules and regulations, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States ("GAAP") for complete financial statements.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements contain all adjustments (consisting only of normal recurring adjustments) considered necessary to present fairly the financial position, results of operations, changes in shareholders' equity and cash flows for the interim periods presented. The March 31, 2018 balance sheet was derived from audited financial statements, but does not include all disclosures required by GAAP. However, the Company believes that the disclosures are adequate to make the information presented not misleading. The financial statements should be read in conjunction with the audited consolidated financial statements at and for the year ended March 31, 2018 included in the Company's Annual Report on Form 10-K for the year then ended. The results of operations for the nine month period ended December 31, 2018 are not necessarily indicative of the results of operations that may be expected for the year ending March 31, 2019 and any future period.

The Company has incurred net losses and negative cash flows from operations in each year since it commenced operations in 2007 and had an accumulated deficit of $354.4 million as of December 31, 2018. At December 31, 2018 the Company had available cash holdings and short-term investments of $107.7 million. The Company expects to fund its operations, including the ongoing development of MosaiQ through successful field trial completion, achievement of required regulatory authorizations and commercialization from the use of existing available cash and short-term investment balances and the issuance of new equity or debt. The Company's existing available cash and short-term investment balances are adequate to meet its forecasted cash requirements for the next twelve months and accordingly the financial statements have been prepared on the going concern basis.

## Note 2. Summary of Significant Accounting Policies

### *Use of Estimates*

The preparation of consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from these estimates.

### *Cash and Cash Equivalents*

The Company considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. All cash and cash equivalents comprised readily accessible cash balances. Restricted cash comprised $7.2 million and $5.0 million at December 31, 2018 and March 31, 2018, respectively, held in a cash reserve account pursuant to the indenture governing the Company's 12% Senior Secured Notes ("the Secured Notes") and $310 at December 31, 2018 held in a restricted account as security for the property rental obligations of the Company's Swiss subsidiary.

***Short-term Investments***

Short-term investments represent investments in a money-market fund which is valued daily and which has no minimum notice period for withdrawals. The fund is invested in a portfolio of holdings and the creditworthiness requirement for individual investment holdings is a minimum of an A rating from a leading credit-rating agency. The Company records the value of its investment in the fund based on the quoted value of the fund at the balance sheet date. Unrealized gains or losses are recorded in accumulated other comprehensive loss and are transferred to the statement of comprehensive loss when they are realized.

***Trade Accounts Receivable***

Trade accounts receivable are recorded at the invoiced amount and are not interest bearing. The Company maintains an allowance for doubtful accounts to reserve for potentially uncollectible trade receivables. Movements in the allowance for doubtful accounts are recorded in general and administrative expenses. The Company reviews its trade receivables to identify specific customers with known disputes or collectability issues. In addition, the Company maintains an allowance for all other receivables not included in the specific reserve by applying specific rates of projected uncollectible receivables to the various aging categories. In determining these percentages, the Company analyzes its historical collection experience, customer credit-worthiness, current economic trends and changes in customer payment terms.

***Concentration of Credit Risks and Other Uncertainties***

The carrying amounts for financial instruments consisting of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short maturities. Derivative instruments, consisting of foreign exchange contracts, and short-term investments are stated at their estimated fair values, based on quoted market prices for the same or similar instruments. The counterparties to the foreign exchange contracts consist of large financial institutions of high credit standing. The short-term investments are invested in a fund which is invested in a portfolio of holdings and the creditworthiness requirement for individual investment holdings is a minimum of an A rating from a leading credit-rating agency.

The Company's main financial institutions for banking operations hold all of the Company's cash and cash equivalents as of December 31, 2018 and at March 31, 2018. The Company's accounts receivable are derived from net revenue to customers and distributors located in the United States and other countries. The Company performs credit evaluations of its customers' financial condition. The Company provides reserves for potential credit losses, but has not experienced significant losses to date. There was one customer whose accounts receivable balance represented 10% or more of total accounts receivable, net, as of December 31, 2018 and March 31, 2018. This customer represented 52% and 51% of the accounts receivable balances as of December 31, 2018 and March 31, 2018, respectively.

The Company currently sells products through its direct sales force and through third-party distributors. There was one customer that accounted for 10% or more of total product sales for the nine month periods ended December 31, 2018 and December 31, 2017. This customer represented 59% of total product sales for the nine month period ended December 31, 2018 and 63% for the nine month period ended December 31, 2017.

***Fair Value of Financial Instruments***

The Company defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Company's valuation techniques used to measure fair value maximized the use of observable inputs and minimized the use of unobservable inputs. The fair value hierarchy is based on the following three levels of inputs:

- Level 1—Quoted prices in active markets for identical assets or liabilities.
- Level 2—Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3—Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

See Note 6, "Commitment and Contingencies," for information and related disclosures regarding the Company's fair value measurements.

***Inventory***

Inventory is stated at the lower of standard cost (which approximates actual cost) or market, with cost determined on the first-in-first-out method. Accordingly, allocation of fixed production overheads to conversion costs is based on normal capacity of production. Abnormal amounts of idle facility expense, freight, handling costs and spoilage are expensed as incurred and not included in overhead. No stock-based compensation cost was included in inventory as of December 31, 2018 and March 31, 2018.

***Property and Equipment***

Property, equipment and leasehold improvements are stated at cost, net of accumulated depreciation and amortization. Depreciation and amortization are computed on a straight-line basis over the estimated useful lives of the related assets as follows:

- Plant, machinery and equipment—4 to 25 years;
- Leasehold improvements—the shorter of the lease term or the estimated useful life of the asset.

Repairs and maintenance expenditures, which are not considered improvements and do not extend the useful life of property and equipment, are expensed as incurred.

***Intangible Assets and Goodwill***

Intangible assets related to product licenses are recorded at cost, less accumulated amortization. Intangible assets related to technology and other intangible assets acquired in acquisitions are recorded at fair value at the date of acquisition, less accumulated amortization. Intangible assets are amortized over their estimated useful lives, on a straight-line basis as follows:

Customer relationships—5 years

Brands associated with acquired cell lines—40 years

Product licenses—10 years

Other intangibles assets—7 years

The Company reviews its intangible assets for impairment and conducts an impairment review when events or circumstances indicate the carrying value of a long-lived asset may be impaired by estimating the future undiscounted cash flows to be derived from an asset to assess whether or not a potential impairment exists. No impairment losses have been recorded in either of the nine month periods ended December 31, 2018 or December 31, 2017.

***Revenue Recognition***

Revenue is recognized in accordance with ASU 2014-09, *Revenue from Contracts with Customers.*

Product revenue is recognized at a point in time upon transfer of control of a product to a customer, which is generally at the time of delivery at an amount based on the transaction price. Customers have no right of return except in the case of damaged goods and the Company has not experienced any significant returns of its products. Shipping and handling costs are expensed as incurred and included in cost of product sales. In those cases where the Company bills shipping and handling costs to customers, the amounts billed are classified as revenue.

Revenue is also earned from the provision of development services to a small number of original equipment manufacturer ("OEM") customers. These development service contracts are reviewed individually to determine the nature of the performance obligations and the associated transaction prices. In recent years, product development revenues have been commensurate with achieving milestones specified in the respective development agreements relating to those products. These milestones may include the approval of new products by the European or U.S. regulatory authorities, which are not within the Company's control. While there can be no assurance that this will continue to be the case, the milestones have been such that they effectively represent full performance of a particular part of a development program and, as a result, the milestone-related revenues have been recognized as the contractual milestones are achieved.

Pursuant to an Umbrella Supply Agreement with Ortho-Clinical Diagnostics, Inc. ("Ortho"), the Company executed a product attachment relating to the development of a range of rare antisera products. During the year ended March 31, 2018, the Company recognized a milestone of $600 related to the receipt of FDA approval of certain rare antisera products. The Company is entitled to receive milestone payments totalling $1,500 upon the updating of the FDA approvals to cover use of the products on Ortho's automation platforms.

In January 2015, the Company entered into a supply and distribution agreement with Ortho related to the commercialization and distribution of certain MosaiQ products. Under the terms of this agreement, the Company is entitled to receive milestone payments upon CE-mark and FDA approval, as well as upon the first commercial sale of the relevant MosaiQ products by Ortho within the European Union, United States and within any country outside of these two regions. The Company has concluded that as each of these milestones require significant levels of development work to be undertaken and there was no certainty at the start of the projects that the development work would be successful, these milestones are substantive and the revenue will be recognized when the milestones are achieved.

In the nine month period ended December 31, 2018, revenue recognized from performance obligations related to prior periods was not material and, at December 31, 2018, revenue expected to be recognized in future periods related to remaining performance obligations was also not material.

***Research and Development***

Research and development expenses consist of costs incurred for company-sponsored and collaborative research and development activities. These costs include direct and research-related overhead expenses. The Company expenses research and development costs, including the expenses for research under collaborative agreements, as such costs are incurred. Where government grants or tax credits are available, the income concerned is included as a credit against the related expense.

***Stock-Based Compensation***

Stock-based compensation cost is measured at the grant date based on the fair value of the award and is recognized as an expense on a straight-line basis over the requisite service period, which is generally the vesting period. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in the Company's consolidated statements of comprehensive loss.

In determining fair value of the stock-based compensation payments, the Company uses the Black–Scholes model and a single option award approach for share options and a barrier option pricing model for multi-year performance based restricted share units ("MRSUs"), both of which require the input of subjective assumptions. These assumptions include: the fair value of the underlying share, estimating the length of time employees will retain their awards before exercising them (expected term), the estimated volatility of the Company's ordinary shares price over the expected term (expected volatility), risk-free interest rate (interest rate), expected dividends and the number of shares subject to awards that will ultimately not complete their vesting requirements (forfeitures).

***Share Warrants***

As of December 31, 2018, the Company had two classes of warrants to purchase ordinary shares outstanding: (i) warrants that were issued in December 2013 and August 2015 in connection with the establishment or increase of the Company's then existing secured term loan facility; and (ii) pre-funded warrants issued in October 2017 as part of the private placement of ordinary shares in October 2017. None of these warrants contain or contained any obligation to transfer value and, as such, the issuance of these warrants has been recorded in additional paid in capital as part of shareholders' equity.

***Leases***

At the inception of each lease, the Company reviews the terms of the lease in accordance with ASC 840 *Leases* in order to determine whether the lease concerned is a capital or an operating lease. In the case of capital leases, an asset is included within property and equipment and a lease liability equal to the present value of the minimum lease payments is included in current or long-term liabilities. Interest expense is recorded over the life of the lease at a constant rate.

Rentals relating to operating leases are expensed over the life of the lease. Rental incentives and the gain on the sale and leaseback of the manufacturing facility near Edinburgh, Scotland completed in March 2018, are included within deferred lease rental benefit in the balance sheet and amortized over the life of the related lease.

***Derivative Financial Instruments***

In the normal course of business, the Company's financial position is routinely subjected to market risk associated with foreign currency exchange rate fluctuations. The Company's policy is to mitigate the effect of these exchange rate fluctuations on certain foreign currency denominated business exposures. The Company has a policy that allows the use of derivative financial instruments to hedge foreign currency exchange rate fluctuations on forecasted revenue denominated in foreign currencies. The Company carries derivative financial instruments (derivatives) on the balance sheet at their fair values. The Company does not use derivatives for trading or speculative purposes. The Company does not believe that it is exposed to more than a nominal amount of credit risk in its foreign currency hedges, as counterparties are large, global and well-capitalized financial institutions. To hedge foreign currency risks, the Company uses foreign currency exchange forward contracts, where possible and prudent. These forward contracts are valued using standard valuation formulas with assumptions about future foreign currency exchange rates derived from existing exchange rates, interest rates, and other market factors.

The Company considers its most current forecast in determining the level of foreign currency denominated revenue to hedge as cash flow hedges. The Company combines these forecasts with historical trends to establish the portion of its expected volume to be hedged. The revenue and expenses are hedged and designated as cash flow hedges to protect the Company from exposures to fluctuations in foreign currency exchange rates. If the underlying forecasted transaction does not occur, or it becomes probable that it will not occur, the related hedge gains and losses on the cash flow hedge are reclassified from accumulated other comprehensive loss to the consolidated statement of comprehensive loss at that time.

***Income Taxes***

The Company accounts for income taxes using an asset and liability approach, which requires recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the consolidated financial statements, but have not been reflected in taxable income. A valuation allowance is established to reduce deferred tax assets to their estimated realizable value. Therefore, the Company provides a valuation allowance to the extent that is more likely than not that it will generate sufficient taxable income in future periods to realize the benefit of its deferred tax assets. Deferred tax assets and liabilities are classified as noncurrent on the balance sheet.

On December 22, 2017, the Tax Cuts and Jobs Act of 2017, or the TCJA, was enacted. This tax reform legislation made significant changes in U.S. tax law including a reduction in the corporate tax rates, changes to net operating loss carryforwards and carrybacks, and a repeal of the corporate alternative minimum tax. The legislation reduced the U.S. corporate tax rate from the rate of 34% to 21% effective on January 1, 2018. As a result, the Company revalued its U.S. deferred tax assets and liabilities at the 21% rate with effect from January 1, 2018. This revaluation and also the other provisions of the TCJA did not have a material impact on the Company's consolidated financial statements.

***Debt Issuance Costs and Royalty Rights***

The Company follows the requirements of Accounting Standards Update 2015-03, Interest — Imputation of Interest (Subtopic 835-30) — Simplifying the Presentation of Debt Issuance Costs, which requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the debt liability rather than as an asset.

The royalty rights agreements entered into with subscribers to the two issuances of the Secured Notes are treated as sales of future revenues that meet the requirements of Accounting Standards Codification Topic 470 "*Debt"* ("ASC 470") to be treated as debt. The future cash outflows under the royalty rights agreements have been combined with the issuance costs and interest payable to calculate the effective interest rate of the Secured Notes and will be expensed through interest expense in the consolidated statement of comprehensive loss using the effective interest rate method over the term of the Secured Notes and royalty rights agreements.

On December 18, 2018, the Company completed certain amendments to the indenture governing the Secured Notes. These amendments included a six-month extension of the final maturity of the Secured Notes to April 2024 and a revision of the Secured Notes' principal amortization (previously scheduled to commence semi-annually beginning April 2019) to commence April 2021, in order to better align the maturity and amortization schedule with the Company's financial goals. The revised amortization schedule deferred approximately $39.6 million of principal amortization previously scheduled to occur between April 2019 and April 2021. In addition, the amendments included a one-year extension of the optional redemption call schedule to October 2022. In consideration for the consents to the amendments, the Company paid to the noteholders a one-time consent payment of $3.9 million and it issued additional royalty rights to the noteholders, which increased in the aggregate the amount of the royalties payable under the royalty rights that were previously issued by the Company in connection with the prior issuances of the Secured Notes by 1%, from 2% to 3%, of the aggregate net sales of MosaiQ instruments and consumables in specified markets.

The amendments to the maturity of the Secured Notes have been evaluated as a modification of the terms of the debt under ASC 470 and accordingly the consent payment of $3.9 million and the increase in the royalty rights have been added to the costs of the October 2016 and June 2018 debt issuances of the Secured Notes and will be expensed through interest expense in the consolidated statement of comprehensive loss using the effective interest rate method over the term of the Secured Notes and royalty rights agreements.

***Pension Obligation***

The Company maintains a pension plan covering employees in Switzerland pursuant to the requirements of Swiss pension law. Certain aspects of the plan require that it be accounted for as a defined benefit plan pursuant to Accounting Standards Codification Topic, 715 *Compensation – Retirement Benefits* (“ASC 715”). The Company recognizes an asset for the plan’s overfunded status or a liability for the plan’s underfunded status in its consolidated balance sheets. Additionally, the Company measures the plan’s assets and obligations that determine its funded status as of the end of the year and recognizes the change in the funded status within ‘‘Accumulated other comprehensive loss’’. The service cost component of the net periodic benefit cost is disclosed in the same line item as other employee compensation costs arising from services rendered during the period, and the other components are reported separately from the line item that includes the service cost and within interest expense, net in the consolidated statement of comprehensive loss.

The Company uses an actuarial valuation to determine its pension benefit costs and credits. The amounts calculated depend on a variety of key assumptions, including discount rates and expected return on plan assets. Details of the assumptions used to determine the net funded status are set out in the notes to the Company’s audited consolidated financial statements included in the Company’s Annual Report on Form 10-K for the fiscal year ended March 31, 2018. The Company’s pension plan assets are assigned to their respective levels in the fair value hierarchy in accordance with the valuation principles described in the ‘‘Fair Value of Financial Instruments’’ section above.

***Adoption of New Accounting Standards***

In May 2014, the FASB issued Accounting Standards Update, or ASU, 2014-09, *Revenue from Contracts with Customers*, or ASU 2014-09. Under ASU 2014-09, a company should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In addition, ASU 2014-09 requires certain additional disclosures around the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. The FASB has issued several amendments to the standard, including clarification on accounting for licenses of intellectual property, identifying performance obligations and other technical corrections. The Company adopted ASU 2014-09 on April 1, 2018, using the modified retrospective approach. The adoption of ASU 2014-09 did not have a material impact on the Company’s financial position, results of operations, equity or cash flows as of the adoption date or for the nine months ended December 31, 2018.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows: Restricted Cash*, or ASU 2016-18. ASU 2016-18 requires amounts generally described as restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the total beginning and ending amounts for the periods shown on the statement of cash flows. ASU 2016-18 is effective for fiscal years beginning after December 15, 2017 (including interim periods within) using a retrospective transition method to each period presented. The Company adopted ASU 2016-18 retrospectively as of April 1, 2018. The adoption of ASU 2016-18 has not had a material impact on the Company’s consolidated statement of cash flows.

In March 2017, the FASB issued ASU 2017-07 *Compensation-Retirement Benefits*, or ASU 2017-07, in order to improve the presentation of net periodic pension cost and net periodic postretirement benefit cost in the statements of operations. Under ASU 2017-07, the service cost component of the net periodic benefit cost is disclosed in the same income statement line item as other employee compensation costs arising from services rendered during the period, and the other components are reported separately from the line item that includes the service cost and outside of any subtotal of operating income. ASU 2017-07 is effective for annual periods beginning after December 15, 2017 (including interim periods within) using a retrospective transition method to each period presented. The Company adopted the provisions of ASU 2017-07 on April 1, 2018 and applied the change retrospectively in its consolidated statement of comprehensive loss using the practical expedient. The adoption of ASU 2017-07 has not had a material impact on the Company’s consolidated statement of comprehensive loss.

In May 2017, the FASB issued ASU 2017-09, *Scope of Modification Accounting*, or ASU 2017-09. ASU 2017-09 provides guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting of a share-based payment award. The guidance should be applied prospectively to an award modified on or after the adoption date. The Company adopted ASU 2017-09 prospectively on April 1, 2018. The adoption of ASU 2017-09 has not had a material impact on the Company’s financial position, results of operations or related disclosures.

***Recent Accounting Pronouncements Not Yet Adopted***

The FASB issued ASU 2016-02, *Leases* that requires lessees to recognize a right-of-use asset and a lease liability on their balance sheet in respect of both capital and operating leases but recognize expenses in their income statements in a manner similar to current accounting standards. ASU 2016-02 will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing and uncertainty of cash flows arising from leases. ASU 2016-02 is effective for annual periods beginning after December 15, 2018, including interim periods within those fiscal years, with early adoption permitted. The new standard will apply to the Company's fiscal year ending March 31, 2020.

In adopting this standard the Company expects to apply the package of practical expedients in ASU 2016-02 which allow an entity to not reassess whether any expired or existing contracts are or contain leases, lease classification of any expired or existing leases and the accounting for any initial direct costs on any expired or existing leases. The Company also expects to elect the additional transitional approach prescribed under ASU 2018-11 to allow the Company to apply the new standard from the date of adoption, rather than adjusting comparative periods, and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The Company has completed a preliminary review of the existing portfolio of leases and is currently evaluating the impact adopting the new standard will have on its consolidated financial statements and related disclosures. The Company does not expect any material impact on its consolidated statements of comprehensive loss but does expect to add significant right-of-use assets and associated lease liabilities of approximately equal amounts to its consolidated balance sheet in respect of its existing operating lease arrangements.

**Note 3. Intangible Assets**

| | December 31, 2018 | | | |
|---|---|---|---|---|
| | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount | Weighted Average Remaining Useful Life |
| Customer relationships | $ 2,507 | $ (2,507) | $ — | — |
| Brands associated with acquired cell lines | 517 | (146) | 371 | 28.7 years |
| Product licenses | 870 | (482) | 388 | 4.5 years |
| Other intangibles | 163 | (163) | — | — |
| Total | $ 4,057 | $ (3,298) | $ 759 | 16.3 years |

| | March 31, 2018 | | | |
|---|---|---|---|---|
| | Gross Carrying Amount | Accumulated Amortization | Net Carrying Amount | Weighted Average Remaining Useful Life |
| Customer relationships | $ 2,758 | $ (2,758) | $ — | — |
| Brands associated with acquired cell lines | 569 | (150) | 419 | 29.5 years |
| Product licenses | 954 | (459) | 495 | 5.2 years |
| Other intangibles | 179 | (179) | — | — |
| Total | $ 4,460 | $ (3,546) | $ 914 | 16.3 years |

**Note 4. Debt**

Long-term debt comprises:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Total debt | $ 120,000 | $ 84,000 |
| Less current portion | — | — |
| Long-term debt | $ 120,000 | $ 84,000 |
| Deferred debt costs and royalty liability, net of amortization | 44 | 1,063 |
| | $ 120,044 | $ 85,063 |

The Company's debt at December 31, 2018 comprises the Secured Notes. On October 14, 2016, the Company completed the private placement of up to $120 million aggregate principal amount of the Secured Notes and entered into an indenture governing the Secured Notes with the guarantors party thereto and U.S. Bank National Association, a national banking association, as trustee and collateral agent. The Company issued $84 million aggregate principal amount of the Secured Notes on October 14, 2016 and an additional $36 million aggregate principal amount of the Secured Notes on June 29, 2018. On December 18, 2018, the Company also completed certain amendments to the indenture governing the Secured Notes. The amendments included an increase to the aggregate principal amount of Secured Notes that can be issued under the indenture from $120.0 million to up to $145.0 million following the European CE Marking of the Company's initial MosaiQ IH Microarray. Furthermore, on January 15, 2019 the Company entered into purchase agreements pursuant to which the Company agreed to issue and certain purchasers agreed to purchase the additional $25 million of the Secured Notes, subject to the European CE Marking of the Company's initial MosaiQ IH Microarray occurring on or before April 30, 2019 and certain other customary closing conditions (the "CE Marking Notes").

Furthermore, the obligations of the Company under the indenture and the Secured Notes are unconditionally guaranteed on a secured basis by the guarantors, which include all the Company's subsidiaries, and the indenture governing the Secured Notes contains customary events of default. The Company and its subsidiaries must also comply with certain customary affirmative and negative covenants, including a requirement to maintain six-months of interest in a cash reserve account maintained with the collateral agent. Upon the occurrence of a Change of Control, subject to certain conditions, or certain Asset Sales (each, as defined in the indenture), holders of the Secured Notes may require the Company to repurchase for cash all or part of their Secured Notes at a repurchase price equal to 101% or 100%, respectively, of the principal amount of the Secured Notes to be repurchased, plus accrued and unpaid interest to the date of repurchase.

The Company paid $7.2 million of the total proceeds of the two issuances into the cash reserve account maintained with the collateral agent under the terms of the indenture, $2.2 million of which related to the second issuance on June 29, 2018.

Interest on the Secured Notes accrues at a rate of 12% per annum and is payable semi-annually on April 15 and October 15 of each year commencing on April 15, 2017. Commencing on April 15, 2021, the Company will also pay an installment of principal of the Secured Notes on each April 15 and October 15 until April 15, 2024 pursuant to a fixed amortization schedule.

In connection with the two prior issuances of the Secured Notes as well as the amendment of the related indenture, the Company has entered into royalty rights agreements, pursuant to which the Company has agreed to pay 3.0% of the aggregate net sales of MosaiQ instruments and consumables made in the donor testing market in the United States and the European Union. Further, pursuant to the purchase agreements that the Company entered into on January 15, 2019, the Company has also agreed to enter into royalty rights agreements at the closing of the CE Marking Notes (if any), pursuant to which the Company will issue the right to receive in the aggregate an additional 0.4% of such net sales. The royalties will be payable beginning on the date that the Company or its affiliates makes its first sale of MosaiQ consumables in the donor testing market in the European Union or the United States and will end on the last day of the calendar quarter in which the eighth anniversary of the first sale date occurs. The existing royalty rights agreements are treated as sales of future revenues that meet the requirements of Accounting Standards Codification Topic 470 "*Debt*" to be treated as debt. The estimated future cash outflows under the existing royalty rights agreements have been combined with the Secured Notes issuance costs and interest payable to calculate the effective interest rate of the Secured Notes and will be expensed through interest expenses using the effective interest rate method over the term of the Secured Notes and such royalty rights agreements. Estimating the future cash outflows under the existing royalty rights agreements requires the Company to make certain estimates and assumptions about future sales of MosaiQ products. These estimates of the magnitude and timing of MosaiQ sales are subject to significant variability due to the current status of development of MosaiQ products, and thus are subject to significant uncertainty. Therefore, the estimates are likely to change as the Company gains experience of marketing MosaiQ, which may result in future adjustments to the accretion of the interest expense and amortized cost based carrying value of the Secured Notes.

At December 31, 2018, the outstanding debt was repayable as follows:

| | |
|---|---|
| Within 1 year | $ — |
| Between 1 and 2 years | — |
| Between 2 and 3 years | 20,000 |
| Between 3 and 4 years | 35,000 |
| Between 4 and 5 years | 40,000 |
| After 5 years | 25,000 |
| Total debt | $ 120,000 |

**Note 5. Consolidated Balance Sheet Detail**

***Inventory***

The following table summarizes inventory by category for the dates presented:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Raw materials | $ 8,835 | $ 10,024 |
| Work in progress | 4,547 | 4,226 |
| Finished goods | 1,924 | 2,028 |
| Total inventories | $ 15,306 | $ 16,278 |

Inventory at December 31, 2018 included $7,060 of raw materials, $1,800 of work in progress and $175 of finished goods related to the MosaiQ project. Inventory at March 31, 2018, included $8,441 of raw materials and $1,528 of work in progress and $389 of finished goods related to the MosaiQ project.

***Property and equipment***

The following table summarizes property and equipment by categories for the dates presented:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Plant and equipment | $ 51,133 | $ 51,912 |
| Leasehold improvements | 31,858 | 34,611 |
| Total property and equipment | 82,991 | 86,523 |
| Less: accumulated depreciation | (33,705) | (26,367) |
| Total property and equipment, net | $ 49,286 | $ 60,156 |

Depreciation expenses were $3,058 and $2,576 in the quarters ended December 31, 2018 and December 31, 2017, respectively, and $9,428 and $7,612 in the nine month periods ended December 31, 2018 and 2017, respectively.

***Accrued compensation and benefits***

Accrued compensation and benefits consist of the following:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Salary and related benefits | $ 220 | $ 455 |
| Accrued vacation | 478 | 504 |
| Accrued payroll taxes | 1,577 | 1,353 |
| Accrued incentive payments | 2,062 | 3,000 |
| Total accrued compensation and benefits | $ 4,337 | $ 5,312 |

***Accrued expenses and other current liabilities***

Accrued expenses and other current liabilities consist of the following:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Accrued legal and professional fees | $ 1,263 | $ 280 |
| Accrued interest | 3,077 | 4,612 |
| Goods received not invoiced | 1,900 | 1,272 |
| Accrued capital expenditure | 984 | 3,309 |
| Other accrued expenses | 3,166 | 5,867 |
| Total accrued expenses and other current liabilities | $ 10,390 | $ 15,340 |

At March 31, 2018, other accrued expenses included a value added tax liability of $2,905 related to the completion of the sale and leaseback of the Company's new conventional reagents manufacturing facility (the "Biocampus facility") in March 2018. There was an offsetting value added tax recoverable balance within prepaid expenses and other current assets at March 31, 2018. There were no equivalent amounts at December 31, 2018.

**Note 6. Commitments and Contingencies**

***Government grant***

In 2008, the Company was awarded research and development grant funding from Scottish Enterprise amounting to £1,791, for the development of MosaiQ. The total grant claimed to December 31, 2018 is £1,790. The Company updates Scottish Enterprise periodically with the status of the project and, while the terms of the grant award provide for full repayment of the grant in certain circumstances, the Company does not consider that any repayment is likely.

***Hedging arrangements***

The Company's subsidiary in the United Kingdom ("UK") has entered into three contracts to sell $500 and purchase pounds sterling at £1:$1.4140 in each calendar month from January 2019 through March 2019, three contracts to sell $500 and purchase pounds sterling at £1:$1.3520 in each calendar month from April 2019 through June 2019 and three contracts to sell $500 and purchase pounds sterling at £1:$1.30 in each calendar month from July 2019 through September 2019 as hedges of its U.S. dollar denominated revenues.

***Fair value measurements***

The following table summarizes the Company's assets and liabilities that are measured at fair value on a recurring basis, by level, within the fair value hierarchy:

| | December 31, 2018 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| Pension plan assets(1) | $ — | $ 10,180 | $ — | $ 10,180 |
| Short-term investments(2) | 103,202 | — | — | 103,202 |
| Total assets measured at fair value | $ 103,202 | $ 10,180 | $ — | $ 113,382 |

| | December 31, 2018 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Liabilities: | | | | |
| Foreign currency forward contracts(3) | $ — | $ 267 | $ — | $ 267 |
| Total liabilities measured at fair value | $ — | $ 267 | $ — | $ 267 |

| | March 31, 2018 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Assets: | | | | |
| Pension plan assets(1) | $ — | $ 9,616 | $ — | $ 9,616 |
| Short-term investments(2) | 5,669 | — | — | 5,669 |
| Foreign currency forward contracts(3) | — | 118 | — | 118 |
| Total assets measured at fair value | $ 5,669 | $ 9,734 | $ — | $ 15,403 |

| | March 31, 2018 | | | |
|---|---|---|---|---|
| | Level 1 | Level 2 | Level 3 | Total |
| Liabilities: | | | | |
| Foreign currency forward contracts(3) | $ — | $ 64 | $ — | $ 64 |
| Total liabilities measured at fair value | $ — | $ 64 | $ — | $ 64 |

(1) The fair value of pension plan assets has been determined as the surrender value of the portfolio of active insured employees held within the Swiss Life collective investment fund. See Note 10, "Defined Benefit Pension Plans".
(2) The fair value of short-term investments has been determined based on the quoted value of the units held in the money market fund at the balance sheet date. See Note 2, "Summary of Significant Accounting Policies – Short-term Investments".
(3) The fair value of foreign currency forward contracts has been determined by calculating the present value of future cash flows, estimated using market-based observable inputs including forward and spot exchange rates and interest rate curves obtained from third party market price quotations.

**Note 7. Ordinary and Preference Shares**

***Ordinary shares***

The Company's issued and outstanding ordinary shares were as follows:

| | Shares Issued and Outstanding | | |
|---|---|---|---|
| | December 31, 2018 | March 31, 2018 | Par value |
| Ordinary shares | 64,972,552 | 45,646,424 | $ — |
| Total | 64,972,552 | 45,646,424 | $ — |

***Preference shares***

The Company's issued and outstanding preference shares consist of the following:

| | Shares Issued and Outstanding | | Liquidation amount per share | |
|---|---|---|---|---|
| | December 31, 2018 | March 31, 2018 | December 31, 2018 | March 31, 2018 |
| 7% Cumulative Redeemable Preference shares | 666,665 | 666,665 | $ 28.67 | $ 27.50 |
| Total | 666,665 | 666,665 | | |

In the period between March 31, 2018 and July 31, 2018, 8,414,683 warrants that were previously issued in connection with the Company's October 2017 private placement of ordinary shares were exercised for 8,414,683 ordinary shares at $5.80 per share, which generated $48.8 million of proceeds. On August 3, 2018, the Company entered into two subscription agreements with Franz Walt, the Company's Chief Executive Officer, and with Heino von Prondzynski, the Company's Chairman, pursuant to which we issued a combined total of 55,000 ordinary shares at a price of $7.54 per share for aggregate proceeds of $0.4 million. On December 11, 2018, the Company completed a public offering of 10,615,385 newly issued ordinary shares at a price of $6.50 per share which raised $69.0 million of gross proceeds before underwriting discounts and other offering expenses.

**Note 8. Share-Based Compensation**

The Company records share-based compensation expense in respect of options, multi-year performance based restricted share units ("MRSUs") and restricted share units ("RSUs") issued under its share incentive plans. Share-based compensation expense amounted to $1,073 and $986 in the quarters ended December 31, 2018 and December 31, 2017, respectively, and $3,576 and $3,458 in the nine month periods ended December 31, 2018 and December 31, 2017, respectively.

***Share option activity***

The following table summarizes share option activity:

| | Number of Share Options Outstanding | Weighted Average Exercise Price | Weighted Average Remaining Contractual Life (Months) |
|---|---|---|---|
| Outstanding — March 31, 2018 | 2,096,283 | $ 7.79 | 84 |
| Granted | 189,552 | 6.59 | 120 |
| Exercised | (11,484) | 1.98 | — |
| Forfeited | (33,128) | 10.77 | — |
| Outstanding — December 31, 2018 | 2,241,223 | $ 7.67 | 79 |
| Exercisable — December 31, 2018 | 1,659,596 | $ 7.90 | 69 |

The closing price of the Company's ordinary shares on The NASDAQ Global Market at December 31, 2018 was $6.12.

The following table summarizes the options granted in the current financial year with their exercise prices, the fair value of ordinary shares as of the applicable grant date, and the intrinsic value:

| Grant Date | Number of Options Granted | Exercise Price | Ordinary Shares Fair Value Per Share at Grant Date | Per Share Intrinsic Value of Options |
|---|---|---|---|---|
| April 1, 2018 | 30,000 | $ 4.71 | $ 4.71 | $ 2.99 |
| October 31, 2018 | 43,680 | $ 6.41 | $ 6.41 | $ 4.02 |
| October 31, 2018 | 45,872 | $ 6.54 | $ 6.41 | $ 4.00 |
| October 31, 2018 | 70,000 | $ 7.54 | $ 6.41 | $ 3.81 |

***Determining the fair value of share incentive awards***

The fair value of each share incentive grant was determined by the Company using the Black-Scholes options pricing model.

Assumptions used in the option pricing models are discussed below. Each of these inputs is subjective and generally requires significant judgment to determine.

*Expected volatility*. The expected volatility was based on the historical share volatilities of a number of the Company's publicly listed peers over a period equal to the expected terms of the options as the Company did not have a sufficient trading history to use the volatility of its own ordinary shares.

*Fair value of ordinary shares.* The fair value of the ordinary shares is based upon the closing price of the Company's shares on The NASDAQ Global Market on the last trading day prior to the date of grant.

*Risk-Free Interest Rate.* The risk-free interest rate is based on the US Treasury 10-year bond yield in effect at the time of grant.

*Expected term.* The expected term is determined after giving consideration to the contractual terms of the share-based awards, graded vesting schedules ranging from one to three years and expectations of future employee behavior as influenced by changes to the terms of its share-based awards.

*Expected dividend.* According to the terms of the awards, the exercise price of the options is adjusted to take into account any dividends paid. As a result dividends are not required as an input to the model, as these reductions in the share price are offset by a corresponding reduction in exercise price.

A summary of the assumptions applicable to the share options issued in the current financial year is as follows:

| | April 1, 2018 | October 31, 2018 |
|---|---|---|
| Risk-free interest rate | 2.74% | 3.14% |
| Expected lives (years) | 6 | 6 |
| Volatility | 67.02% | 67.22% |
| Dividend yield | — | — |
| Grant date fair value (per share) | $ 4.71 | $ 6.41 |
| Number granted | 30,000 | 159,552 |

A summary of the RSUs and MRSUs in issue at December 31, 2018 is as follows:

| | Number of RSUs or MRSUs Outstanding | Weighted Average Remaining Vesting Period (Months) | Period in which the target must be achieved |
|---|---|---|---|
| RSUs subject to time based vesting | 724,772 | 11 | N/A |
| RSUs subject to milestone based vesting | 254,980 | N/A | N/A |
| MRSUs with vesting based on $22 share price | 106,000 | N/A | Apr - Dec 2019 |

At December 31, 2018, 724,772 RSUs were subject to time-based vesting and the weighted average remaining vesting period was 11 months. In addition, 254,980 RSUs were subject to vesting based on the achievement of various business milestones related mainly to the development, approval and marketing of MosaiQ. The MRSUs in issue at December 31, 2018 comprised 106,000 MRSUs which will vest between April 1, 2019 and December 31, 2019 if the Company's ordinary share price exceeds $22 for 20 consecutive days in this period.

**Note 9. Income Taxes**

A reconciliation of the income tax expense at the statutory rate to the provision for income taxes is as follows:

| | Quarter ended December 31, | | Nine months ended December 31, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Income tax expense at statutory rate | $ — | $ — | $ — | $ — |
| Foreign tax rate differential | (1,328) | (1,122) | (3,812) | (3,367) |
| Increase in valuation allowance against deferred tax assets | 1,339 | 1,122 | 3,845 | 3,367 |
| Provision for income tax | $ 11 | $ — | $ 33 | $ — |

Significant components of deferred tax are as follows:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Provisions and reserves | $ 1,394 | $ 1,327 |
| Net operating loss carry forwards | 16,063 | 12,476 |
| Gross deferred tax assets | $ 17,457 | $ 13,803 |
| Fixed assets basis difference | $ (126) | $ (284) |
| Gross deferred tax liabilities | $ (126) | $ (284) |
| Net deferred tax asset | $ 17,331 | $ 13,519 |
| Valuation allowance | (16,715) | (12,870) |
| Total | $ 616 | $ 649 |

The balance sheet classification of deferred tax is as follows:

| | December 31, 2018 | March 31, 2018 |
|---|---|---|
| Net noncurrent deferred tax assets | $ 616 | $ 649 |
| Total | $ 616 | $ 649 |

In connection with the sale and leaseback transaction of the Biocampus facility that was completed in March 2018, the Company has agreed to transfer tax allowances related to certain other property, plant and equipment to the purchaser. However, at December 31, 2018, the transfer of these allowances had not been completed and thus the effect of the transfer has not been reflected in the financial statements.

**Note 10. Defined Benefit Pension Plans**

The Company's Swiss subsidiary has a fully insured pension plan managed by Swiss Life. The costs of this plan were:

| | Quarter ended December 31, | | Nine months ended December 31, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| Employer service cost | $ 388 | $ 401 | $ 1,183 | $ 1,192 |
| Interest cost | 38 | 28 | 115 | 82 |
| Expected return on plan assets | (32) | (30) | (98) | (87) |
| Amortization of prior service credit | (4) | (4) | (11) | (11) |
| Amortization of net loss | 38 | 47 | 116 | 140 |
| Net pension cost | $ 428 | $ 442 | $ 1,305 | $ 1,316 |

The employer contributions for the nine month periods ended December 31, 2018 and December 31, 2017 were $852 and $823, respectively. The estimated employer contributions for the fiscal year ending March 31, 2019 are $1,124.

**Note 11. Net Loss Per Share**

In accordance with Accounting Standards Codification Topic 260 "*Earnings Per Share*", basic earnings available to ordinary shareholders per share is computed based on the weighted average number of ordinary shares outstanding during each period. Diluted earnings available to ordinary shareholders per share is computed based on the weighted average number of ordinary shares outstanding during each period, plus potential ordinary shares considered outstanding during the period, as long as the inclusion of such shares is not anti-dilutive. Potential ordinary shares consist of the incremental ordinary shares issuable upon the exercise of share options (using the treasury shares method), the warrants to acquire ordinary shares and the ordinary shares issuable upon vesting of the MRSUs and RSUs.

The following table sets forth the computation of basic and diluted earnings per ordinary share.

| | Quarter ended December 31, | | Nine months ended December 31, | |
|---|---|---|---|---|
| | 2018 | 2017 | 2018 | 2017 |
| **Numerator:** | | | | |
| Net loss | $ (26,254) | $ (20,311) | $ (78,792) | $ (62,240) |
| Net loss available to ordinary shareholders - basic and diluted | $ (26,254) | $ (20,311) | $ (78,792) | $ (62,240) |
| **Denominator:** | | | | |
| Weighted-average shares outstanding - basic and diluted | 56,619,356 | 43,353,506 | 51,512,352 | 39,274,570 |
| Loss per share - basic and diluted | $ (0.46) | $ (0.47) | $ (1.53) | $ (1.58) |

The following table sets out the numbers of ordinary shares excluded from the above computation of earnings per share at December 31, 2018 and December 31, 2017 as their inclusion would have been anti-dilutive.

| | December 31, 2018 | December 31, 2017 |
|---|---|---|
| Ordinary shares issuable on exercise of options to purchase ordinary shares | 2,241,223 | 2,122,641 |
| Restricted share units awarded, including the multi-year performance related restricted share units | 1,085,752 | 1,005,712 |
| Ordinary shares issuable on exercise of warrants at $16.14 per share | 111,525 | 111,525 |
| Ordinary shares issuable on exercise of warrants at $9.375 per share | 64,000 | 64,000 |
| Ordinary shares issuable on exercise of warrants at $5.80 per share | — | 8,414,683 |
| Ordinary shares issuable on exercise of warrants at $0.01 per share | 550,000 | 550,000 |
| | 4,052,500 | 12,268,561 |

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

*You should read the following discussion and analysis of our financial condition and results of operations in conjunction with the corresponding section of our Annual Report on Form 10-K for the year ended March 31, 2018 filed with the Securities and Exchange Commission on May 30, 2018.*

*The information set forth and discussed below for the quarters and nine month periods ended December 31, 2018 and December 31, 2017 is derived from the condensed consolidated financial statements included under Item 1 above. The financial information set forth and discussed below is unaudited but includes all adjustments (consisting of normal recurring adjustments) that our management considers necessary for a fair presentation of the financial position and the operating results and cash flows for those periods. Our results of operations for a particular quarter may not be indicative of the results that may be expected for other quarters or the entire year.*

*In addition to historical financial information, the following discussion contains forward looking statements that reflect our plans, estimates, beliefs and expectations that involve risks and uncertainties. Our actual results and the timing of events could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Quarterly Report, and our Annual Report on Form 10-K for the year ended March 31, 2018, particularly in "Risk Factors."*

**Overview**

We were incorporated in Jersey, Channel Islands on January 18, 2012. On February 16, 2012, we acquired the entire issued share capital of Alba Bioscience Limited (or Alba), Quotient Biodiagnostics, Inc. (or QBDI) and QBD (QSIP) Limited (or QSIP) from Quotient Biodiagnostics Group Limited (or QBDG), our predecessor.

The acquisition of Alba, QBDI and QSIP by us is treated for accounting purposes as a combination of entities under common control as these entities were all controlled by QBDG prior to their acquisition by us. We recognized the assets and liabilities of Alba, QBDI and QSIP at their carrying amounts in the financial statements of those companies. We are a continuation of QBDG and its subsidiaries and, accordingly, our consolidated financial statements include the assets, liabilities and results of operations of the subsidiaries transferred since their inception.

**Our Business**

We are a commercial-stage diagnostics company committed to reducing healthcare costs and improving patient care through the provision of innovative tests within established markets. Our initial focus is on blood grouping and donor disease screening, which is commonly referred to as transfusion diagnostics. Blood grouping involves specific procedures performed at donor or patient testing laboratories to characterize blood, which includes antigen typing and antibody detection. Disease screening involves the screening of donor blood for unwanted pathogens using two different methods, a serological approach (testing for specific antigens or antibodies) and a molecular approach (testing for DNA or RNA).

We have over 30 years of experience developing, manufacturing and commercializing conventional reagent products used for blood grouping within the global transfusion diagnostics market. We are developing MosaiQ, our proprietary technology platform, to better address the comprehensive needs of this large and established market. MosaiQ will initially comprise two separate microarrays, one for immunohematology (blood grouping) and one for serological disease screening, and a high-throughput instrument. We are also developing a third microarray for molecular disease screening. We believe MosaiQ has the potential to transform transfusion diagnostics, significantly reducing the cost of blood grouping in the donor and patient testing environments, while improving patient outcomes.

We operate as one business segment with 414 employees in the United States, the United Kingdom and Switzerland as of December 31, 2018. Our principal markets are the United States, Europe and Japan. Based on the location of the customer, revenues outside the United States accounted for 50% of total revenue during the nine month period ended December 31, 2018 and 47% during the nine month period ended December 31, 2017.

We have incurred net losses and negative cash flows from operations in each year since we commenced operations in 2007. As of December 31, 2018, we had an accumulated deficit of $354.4 million. We expect our operating losses to continue for at least the remainder of the current year as we continue our investment in the development and commercialization of MosaiQ. For the nine month period ended December 31, 2018, our total revenue was $20.9 million and our net loss was $78.8 million.

From our incorporation in 2012 to March 31, 2018, we have raised $110.8 million of gross proceeds through the private placement of our ordinary and preference shares and warrants, $181.1 million of gross proceeds from public offerings of our shares and issuances of ordinary shares upon exercise of warrants and $84.0 million of gross proceeds from the issuance of 12% Senior Secured Notes (the "Secured Notes").

On June 29, 2018, we issued an additional $36.0 million aggregate principal amount of the Secured Notes. As referenced above, we previously issued $84.0 million aggregate principal amount of the Secured Notes on October 14, 2016. On June 29, 2018, we paid $2.2 million of the net proceeds of the issuance of the additional Secured Notes into the cash reserve account maintained with the collateral agent under the terms of the indenture governing the Secured Notes, which together with the $5.0 million paid into the cash reserve account on October 14, 2016, brought the total in the cash reserve account to $7.2 million at December 31, 2018.

In the period between March 31, 2018 and July 31, 2018, 8,414,683 warrants that were previously issued in connection with our October 2017 private placement of ordinary shares were exercised for 8,414,683 ordinary shares at $5.80 per share, which generated $48.8 million of proceeds.

On August 3, 2018, we entered into two subscription agreements with Franz Walt, our Chief Executive Officer, and with Heino von Prondzynski, our Chairman, pursuant to which we issued a combined total of 55,000 ordinary shares at a price of $7.54 per share (which was equal to the closing bid price of our ordinary shares as reported on the NASDAQ Global Market on August 2, 2018) for aggregate proceeds of $0.4 million.

On December 11, 2018, we completed a public offering of 10,615,385 newly issued ordinary shares at a price of $6.50 per share which raised $69 million of gross proceeds before underwriting discounts and other offering expenses.

On December 18, 2018, we completed certain amendments to the indenture governing the Secured Notes. These amendments included a six-month extension of the final maturity of the Secured Notes to April 2024 and a revision of the Secured Notes' principal amortization (previously scheduled to commence semi-annually beginning April 2019) to commence April 2021, in order to better align the maturity and amortization schedule with our financial goals. The revised amortization schedule defers approximately $39.6 million of principal amortization previously scheduled to occur between April 2019 and April 2021. In addition, the amendments include a one-year extension of the optional redemption call schedule to October 2022. In consideration for the consents to the amendments, we paid to the noteholders a one-time consent payment of $3.9 million and we issued additional royalty rights to the noteholders, which increased in the aggregate the amount of the royalties payable under the royalty rights that were previously issued by us in connection with the prior issuances of the Secured Notes by 1%, from 2% to 3%, of the aggregate net sales of MosaiQ instruments and consumables in specified markets.

The amendments also included an increase to the aggregate principal amount of Secured Notes that can be issued under the indenture from $120.0 million to up to $145.0 million following the European CE Marking of the Company's initial MosaiQ IH Microarray. On January 15, 2019 we entered into purchase agreements pursuant to which we agreed to issue and certain purchasers agreed to purchase the additional $25 million of the Secured Notes, subject to the European CE Marking of the Company's initial MosaiQ IH Microarray occurring on or before April 30, 2019 and certain other customary closing conditions.

As of December 31, 2018, we had available cash, cash equivalents and short-term investments of $107.7 million and $7.5 million of restricted cash held as part of the arrangements relating to our Secured Notes and the lease of our property in Eysins, Switzerland.

**Revenue**

We generate revenue from the sale of conventional reagent products directly to hospitals, donor collection agencies and independent testing laboratories in the United States, the United Kingdom and to distributors in Europe and the rest of the world, and indirectly through sales to our original equipment manufacturer (or OEM) customers. We recognize revenues in the form of product sales when the goods are shipped. Products sold by standing purchase orders as a percentage of product sales revenue were 67% and 75% for the nine month periods ended December 31, 2018 and December 31, 2017, respectively. We also provide product development services to our OEM customers. We recognize revenue from these contractual relationships in the form of product development fees, which are included in other revenues. For a description of our revenue recognition policies, see "—Critical Accounting Policies and Significant Judgments and Estimates—Revenue Recognition and Accounts Receivable."

Our revenue is denominated in multiple currencies. Sales in the United States and to certain of our OEM customers are denominated in U.S. Dollars. Sales in Europe and the rest of the world are denominated primarily in U.S. Dollars, Pounds Sterling or Euros. Our expenses are generally denominated in the currencies in which our operations are located, which are primarily in the United Kingdom, Switzerland and the United States. We operate globally and therefore changes in foreign currency exchange rates may become material to us in the future due to factors beyond our control. See "—Quantitative and Qualitative Disclosure About Market Risk—Foreign Currency Exchange Risk."

**Cost of revenue and operating expenses**

Cost of revenue consists of direct labor expenses, including employee benefits, overhead expenses, material costs and freight costs, along with the depreciation of manufacturing equipment and leasehold improvements. Our gross profit represents total revenue less the cost of revenue and gross margin represents gross profit expressed as a percentage of total revenue. We expect our overall cost of revenue to increase in absolute U.S. Dollars as we continue to increase our product sales volumes. However, we also believe that we can achieve efficiencies in our manufacturing operations, primarily through increasing production volumes.

Our sales and marketing expenses include costs associated with our sales organization for conventional reagent products, including our direct sales force, as well as our marketing and customer service personnel and our MosaiQ commercial team. These expenses consist principally of salaries, commissions, bonuses and employee benefits, as well as travel and other costs related to our sales and product marketing activities. We expense all sales and marketing costs as incurred. We expect sales and marketing expense to increase in absolute U.S. Dollars, primarily as a result of commissions on increased product sales in the United States and as we grow the MosaiQ commercial team.

Our research and development expenses include costs associated with performing research, development, field trials and our regulatory activities, as well as production costs incurred in advance of the commercial launch of MosaiQ. Research and development expenses include research personnel-related expenses, fees for contractual and consulting services, travel costs, laboratory supplies and depreciation of laboratory equipment.

We expense all research and development costs as incurred, net of government grants received and tax credits. Our UK subsidiary claims certain tax credits on its research and development expenditures and these are included as an offset to our research and development expenses. Our research and development efforts are focused on developing new products and technologies for the global transfusion diagnostics market. We segregate research and development expenses for the MosaiQ project from expenses for other research and development projects. We do not maintain detailed records of these other costs by activity. We are nearing completion of the initial development of MosaiQ and as we move to commercialization, we expect overall research and development expense to decrease.

Our general and administrative expenses include costs for our executive, accounting and finance, legal, corporate development, information technology and human resources functions. We expense all general and administrative expenses as incurred. These expenses consist principally of salaries, bonuses and employee benefits for the personnel performing these functions, including travel costs. These expenses also include share-based compensation, professional service fees (such as audit, tax and legal fees), costs related to our Board of Directors, and general corporate overhead costs, which include depreciation and amortization. We expect our general and administrative expenses to increase as our business develops and also due to the costs of operating as a public company, such as additional legal, accounting and corporate governance expenses, including expenses related to compliance with the Sarbanes-Oxley Act, directors' and officers' insurance premiums and investor relations expenses.

Net interest expense consists primarily of interest charges on our Secured Notes and the amortization of debt issuance costs, as well as accrued dividends on the 7% cumulative redeemable preference shares issued in January 2015. We amortize debt issuance costs over the life of the Secured Notes and report them as interest expense in our statements of operations. Net interest also includes the expected costs of the royalty rights agreements we entered into in October 2016, June 2018 and December 2018 with the purchasers and consenting holders, as applicable, of our Secured Notes. See Note 4 "Debt" and Note 7 "Ordinary and Preference Shares – Preference shares" to our condensed consolidated financial statements included in this Quarterly Report for additional information.

Other income (expense), net consists primarily of exchange fluctuations. These include realized exchange fluctuations resulting from the settlement of transactions in currencies other than the functional currencies of our businesses. Monetary assets and liabilities that are denominated in foreign currencies are measured at the period-end closing rate with resulting unrealized exchange fluctuations. The functional currencies of our businesses are Pounds Sterling, Swiss Francs and U.S. Dollars depending on the entity. In the quarter ended December 31, 2018 other income (expense) includes certain fees incurred in relation to the amendment of the indenture relating to our Secured Notes in December 2018.

Provision for income taxes reflects a reduction in the net operating losses available for carrying forward in one subsidiary as a result of the offset of historic tax losses against the profits of this subsidiary.

**Results of Operations**

***Comparison of the Quarters ended December 31, 2018 and 2017***

The following table sets forth, for the periods indicated, the amounts of certain components of our statements of operations and the percentage of total revenue represented by these items, showing period-to-period changes.

| | Quarter ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Revenue:** | | | | | | |
| Product sales | $ 6,723 | 100% | $ 5,653 | 96% | $ 1,070 | 19% |
| Other revenues | — | 0% | 206 | 4% | (206) | — |
| Total revenue | 6,723 | 100% | 5,859 | 100% | 864 | 15% |
| Cost of revenue | 4,186 | 62% | 2,325 | 40% | 1,861 | 80% |
| Gross profit | 2,537 | 38% | 3,534 | 60% | (997) | -28% |
| **Operating expenses:** | | | | | | |
| Sales and marketing | 2,233 | 33% | 1,910 | 33% | 323 | 17% |
| Research and development | 11,788 | 175% | 11,929 | 204% | (141) | -1% |
| General and administrative | 7,544 | 112% | 6,790 | 116% | 754 | 11% |
| Total operating expenses | 21,565 | 321% | 20,629 | 352% | 936 | 5% |
| Operating loss | (19,028) | -283% | (17,095) | -292% | (1,933) | 11% |
| **Other income (expense):** | | | | | | |
| Interest expense, net | (5,679) | -84% | (3,249) | -55% | (2,430) | 75% |
| Other, net | (1,536) | -23% | 33 | 1% | (1,569) | -4755% |
| Total other expense, net | (7,215) | -107% | (3,216) | -55% | (3,999) | 124% |
| Loss before income taxes | (26,243) | -390% | (20,311) | -347% | (5,932) | 29% |
| Provision for income taxes | (11) | — | — | — | (11) | — |
| Net loss | $ (26,254) | -391% | $ (20,311) | -347% | $ (5,943) | 29% |

*Revenue*

Total revenue for the quarter ended December 31, 2018 increased by 15% to $6.7 million, compared with $5.9 million for the quarter ended December 31, 2017. Product revenue for the quarter ended December 31, 2018 increased by 19% to $6.7 million, compared with $5.7 million for the quarter ended December 31, 2017. The increase in product sales was primarily attributable to growth in product sales to OEM customers and incremental direct sales of conventional reagent products to customers in the United States. Products sold by standing purchase order were 67% of product sales for the quarter ended December 31, 2018, compared with 76% for the quarter ended December 31, 2017.

The table below sets forth revenue by product group:

| | Quarter ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Revenue:** | | | | | | |
| Product sales - OEM customers | $ 4,719 | 70% | $ 3,829 | 65% | $ 890 | 23% |
| Product sales - direct customers and distributors | $ 2,004 | 30% | 1,824 | 31% | 180 | 10% |
| Other revenues | — | 0% | 206 | 4% | (206) | — |
| Total revenue | $ 6,723 | 100% | $ 5,859 | 100% | $ 864 | 15% |

***OEM Sales.*** Product sales to OEM customers increased 23% to $4.7 million for the quarter ended December 31, 2018, compared with $3.8 million for the quarter ended December 31, 2017. The increase was due to increased sales to existing customers and the impact of recently launched new products.

***Direct Sales to Customers and Distributors.*** Product sales directly to customers and distributors of $2.0 million for the quarter ended December 31, 2018 increased by $0.2 million compared with $1.8 million for the quarter ended December 31, 2017. This increase was due to increased direct sales in the United States which increased to $1.9 million in the quarter ended December 31, 2018 from $1.5 million in the quarter ended December 31, 2017 as a result of recent product launches and the expansion of our customer base.

***Other Revenues.*** There were no other revenues in the quarter ended December 31, 2018. Other revenues of $0.2 million in the quarter ended December 31, 2017 consisted of sales of MosaiQ instruments to a development partner. The cost of these instruments was included in research and development expenses.

*Cost of revenue and gross margin*

Cost of revenue increased by 80% to $4.2 million for the quarter ended December 31, 2018, compared with $2.3 million for the quarter ended December 31, 2017. The increase in cost of revenue partially reflected incremental costs associated with greater sales volumes. In addition, in the quarter ended December 31, 2018, we were in the process of moving our conventional reagents manufacturing operations to the Biocampus facility, our new facility in Edinburgh, Scotland, the construction of which was completed earlier in 2018, from our other Edinburgh manufacturing facility. In the quarter ended December 31, 2018 we incurred additional costs of operating our new facility as well as our existing facility amounting to approximately $1.4 million, $0.6 million of which were non-cash expenses, as compared with the single facility that existed in the quarter ended December 31, 2017. We vacated our other Edinburgh facility in January 2019.

Gross profit on total revenue for the quarter ended December 31, 2018 was $2.5 million, compared with $3.5 million for the quarter ended December 31, 2017. The decrease was attributable to the decrease in gross margin on product sales described below and no other revenues in the quarter ended December 31, 2018 as compared with $0.2 million of other revenues in the quarter ended December 31, 2017 the associated cost of which was included in research and development expenses.

Gross profit on product sales, which excludes other revenues, was $2.5 million for the quarter ended December 31, 2018 compared with $3.3 million for the quarter ended December 31, 2017. This decrease was due to the additional costs of approximately $1.4 million, $0.6 million of which were non-cash expenses, of operating two conventional reagent manufacturing facilities in the quarter ended December 31, 2018 as compared with the single facility that existed in the quarter ended December 31, 2017, partially offset by the effect of increased sales to existing customers and the impact of recently launched new products. Gross margin on product sales, which excludes other revenues, was 38% for the quarter ended December 31, 2018 compared with 59% for the quarter ended December 31, 2017.

*Sales and marketing expenses*

Sales and marketing expenses were $2.2 million for the quarter ended December 31, 2018, compared with $1.9 million for the quarter ended December 31, 2017. As a percentage of total revenue, sales and marketing expenses were 33% for both the quarter ended December 31, 2018 and the quarter ended December 31, 2017.

*Research and development expenses*

| | Quarter ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Research and development expenses:** | | | | | | |
| MosaiQ research and development | $ 11,464 | 171% | $ 11,706 | 200% | $ (242) | -2% |
| Other research and development | 411 | 6% | 293 | 5% | 118 | 40% |
| Tax credits | (87) | -1% | (70) | -1% | (17) | 24% |
| Total research and development expenses | $ 11,788 | 175% | $ 11,929 | 204% | $ (141) | -1% |

Research and development expenses decreased by 1% to $11.8 million for the quarter ended December 31, 2018, compared with $11.9 million for the quarter ended December 31, 2017. The decrease in costs reflected reduced overall expenditure as the initial development of MosaiQ nears completion.

*General and administrative expenses*

General and administrative expenses increased by 11% to $7.5 million for the quarter ended December 31, 2018, compared with $6.8 million for the quarter ended December 31, 2017, reflecting greater personnel-related costs as we move towards commercialization of MosaiQ, advisory fees and costs of $0.5 million associated with the relocation of our manufacturing facility in Scotland. We recognized $1.1 million of stock compensation expense in the quarter ended December 31, 2018 compared with $1.0 million in the quarter ended December 31, 2017. As a percentage of total revenue, general and administrative expenses decreased to 112% for the quarter ended December 31, 2018, compared with 116% for the quarter ended December 31, 2017.

*Other income (expense)*

Net interest expense was $5.7 million for the quarter ended December 31, 2018, compared with $3.2 million for the quarter ended December 31, 2017. Interest expense in the quarter ended December 31, 2018 included $3.6 million of interest charges on our Secured Notes compared with $2.5 million in the quarter ended December 31, 2017. The increase was due to the additional issuance of $36 million of Secured Notes on June 29, 2018. Interest expense in the quarters ended December 31, 2018 and December 31, 2017 included amortization of deferred debt issue costs of $1.9 million and $0.5 million, respectively, which included, in the 2018 period, amortization of the expected costs of the royalty rights agreements entered into in October 2016, June 2018 and December 2018 in connection with the issuances of the Secured Notes and the amendment of the indenture relating to the Secured Notes and, in the 2017 period, amortization of the expected costs of the royalty rights agreements entered into in October 2016. Net interest expense also included $0.3 million of dividends accrued on the 7% cumulative redeemable preference shares in each of the quarters ended December 31, 2018 and December 31, 2017.

Other expense for the quarter ended December 31, 2018 of $1.5 million was comprised of $0.6 million of foreign exchange losses arising on monetary assets and liabilities denominated in foreign currencies and $0.9 million of fees related to the amendment of the indenture relating to the Secured Notes in December 2018. Other income for the quarter ended December 31, 2017 was comprised of foreign exchange gains.

*Provision for income taxes*

Provision for income taxes reflects a reduction in the net operating losses available for carrying forward in one subsidiary as a result of the offset of historic tax losses against the profits of this subsidiary.

***Comparison of the Nine Month Periods ended December 31, 2018 and 2017***

The following table sets forth, for the periods indicated, the amounts of certain components of our statements of operations and the percentage of total revenue represented by these items, showing period-to-period changes.

| | Nine months ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Revenue:** | | | | | | |
| Product sales | $ 20,834 | 100% | $ 17,789 | 96% | $ 3,045 | 17% |
| Other revenues | 19 | 0% | 806 | 4% | (787) | -98% |
| Total revenue | 20,853 | 100% | 18,595 | 100% | 2,258 | 12% |
| Cost of revenue | 12,803 | 61% | 7,943 | 43% | 4,860 | 61% |
| Gross profit | 8,050 | 39% | 10,652 | 57% | (2,602) | -24% |
| **Operating expenses:** | | | | | | |
| Sales and marketing | 6,359 | 30% | 5,461 | 29% | 898 | 16% |
| Research and development | 37,356 | 179% | 37,944 | 204% | (588) | -2% |
| General and administrative | 22,964 | 110% | 19,309 | 104% | 3,655 | 19% |
| Total operating expenses | 66,679 | 320% | 62,714 | 337% | 3,965 | 6% |
| Operating (loss) | (58,629) | -281% | (52,062) | -280% | (6,567) | 13% |
| **Other income (expense):** | | | | | | |
| Interest expense, net | (14,614) | -70% | (11,656) | -63% | (2,958) | 25% |
| Other, net | (5,516) | -26% | 1,478 | 8% | (6,994) | -473% |
| Total other expense, net | (20,130) | -97% | (10,178) | -55% | (9,952) | 98% |
| Loss before income taxes | (78,759) | -378% | (62,240) | -335% | (16,519) | 27% |
| Provision for income taxes | (33) | 0% | — | — | (33) | 100% |
| Net loss | $ (78,792) | -378% | $ (62,240) | -335% | $ (16,552) | 27% |

*Revenue*

Total revenue for the nine month period ended December 31, 2018 increased by 12% to $20.9 million, compared with $18.6 million for the nine month period ended December 31, 2017. Product sales revenue increased 17% to $20.8 million for the nine month period ended December 31, 2018, compared with $17.8 million for the nine month period ended December 31, 2017. The increase in product sales was primarily attributable to growth in product sales to OEM customers and incremental direct sales of conventional reagent products to customers in the United States. Products sold by standing purchase order were 67% of product sales for the nine month period ended December 31, 2018, compared with 75% for the nine month period ended December 31, 2017.

The table below sets forth revenue by product group:

| | Nine months ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Revenue:** | | | | | | |
| Product sales - OEM customers | $ 14,744 | 71% | $ 12,625 | 68% | $ 2,119 | 17% |
| Product sales - direct customers and distributors | 6,090 | 29% | 5,164 | 28% | 926 | 18% |
| Other revenues | 19 | 0% | 806 | 4% | (787) | -98% |
| Total revenue | $ 20,853 | 100% | $ 18,595 | 100% | $ 2,258 | 12% |

***OEM Sales.*** Product sales to OEM customers increased 17% to $14.7 million for the nine month period ended December 31, 2018, compared with $12.6 million for the nine month period ended December 31, 2017. The increase was due to increased sales to existing customers and the impact of recently launched new products.

***Direct Sales to Customers and Distributors.*** Product sales directly to customers and distributors of $6.1 million for the nine month period ended December 31, 2018 increased by $0.9 million compared with $5.2 million for the nine month period ended December 31, 2017. This increase was due to increased direct sales in the United States which increased to $5.5 million in the nine month period ended December 31, 2018 from $4.4 million in the nine month period ended December 31, 2017 as a result of recent product launches and the expansion of our customer base.

***Other Revenues.*** Other revenues in the nine month period ended December 31, 2018 consisted of sales of ancillary products related to the MosaiQ instruments, which we sold to a development partner in the year ended March 31, 2018 and sales of licenses to use our reagents products. Other revenues of $0.8 million in the nine month period ended December 31, 2017 consisted of $0.6 million of product development fees and $0.2 million of sales of MosaiQ instruments to a development partner. The product development fees arose as the result of the achievement of a product development milestone under the terms of our umbrella supply agreement with Ortho-Clinical Diagnostics Inc., or Ortho. See Note 2 “Summary of Significant Accounting Policies — Revenue Recognition” to our condensed consolidated financial statements included in this Quarterly Report for additional information. In both periods, the cost of these other revenues was included in research and development expenses.

*Cost of revenue and gross margin*

Cost of revenue increased by 61% to $12.8 million for the nine month period ended December 31, 2018, compared with $7.9 million for the nine month period ended December 31, 2017. The increase in cost of revenue partially reflected incremental costs associated with greater sales volumes. In addition, in the nine month period ended December 31, 2018, we were in the process of moving our conventional reagents manufacturing operations to the Biocampus facility, our new facility in Edinburgh, Scotland, the construction of which was completed earlier in 2018, from our other Edinburgh manufacturing facilities. In the nine month period ended December 31, 2018 we incurred additional costs of operating two conventional reagent manufacturing facilities of approximately $3.8 million, $1.6 million of which were non-cash expenses, as compared with the single facility that existed in the nine month period ended December 31, 2017. We vacated our other Edinburgh facilities in January 2019.

Gross profit on total revenue for the nine month period ended December 31, 2018 was $8.1 million, a decrease of 24% compared with $10.7 million in the nine month period ended December 31, 2017. This decrease was attributable to the decrease of $0.8 million in other revenues in the nine month period ended December 31, 2018, and the additional costs of operating two conventional reagent manufacturing facilities of approximately $3.8 million described above, $1.6 million of which were non-cash expenses, which were partially offset by increased sales to existing customers and the impact of recently launched new products. Gross profit expressed as a percentage of total revenue was 39% for the nine month period ended December 31, 2018, compared with 57% for the nine month period ended December 31, 2017.

Gross profit on product sales, which excludes other revenues, was $8.0 million for the nine month period ended December 31, 2018 compared with $9.8 million for the nine month period ended December 31, 2017. This decrease was attributable to the approximately $3.8 million of additional costs of operating two conventional reagent manufacturing facilities described above, which was partially offset by increased sales to existing customers and the impact of recently launched new products. Gross margin on product sales, which excludes other revenues, was 39% for the nine month period ended December 31, 2018 compared with 55% for the nine month period ended December 31, 2017.

*Sales and marketing expenses*

Sales and marketing expense were $6.4 million for the nine month period ended December 31, 2018, compared with $5.5 million for the nine month period ended December 31, 2017. As a percentage of total revenue, sales and marketing expenses were 30% for the nine month period ended December 31, 2018, compared with 29% for the nine month period ended December 31, 2017. The growth in sales and marketing expense in the nine month period ended December 31, 2018 was mainly attributable to increased costs related to the marketing of MosaiQ, including attendance at trade conferences, in the nine month period.

*Research and development expenses*

| | Nine months ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2018 | | 2017 | | Change | |
| | Amount | % of revenue | Amount | % of revenue | Amount | % |
| | (in thousands, except percentages) | | | | | |
| **Research and development expenses:** | | | | | | |
| MosaiQ research and development | $ 36,406 | 175% | $ 37,161 | 200% | $ (755) | -2% |
| Other research and development | 1,158 | 6% | 989 | 5% | 169 | 17% |
| Tax credits | (208) | -1% | (206) | -1% | (2) | 1% |
| Total research and development expenses | $ 37,356 | 179% | $ 37,944 | 204% | $ (588) | -2% |

Research and development expenses decreased by 2% to $37.4 million for the nine month period ended December 31, 2018, compared with $37.9 million for the nine month period ended December 31, 2017. The decrease in costs mainly reflected reduced overall expenditure as the initial development of MosaiQ nears completion. Our research and development expenses in the nine month period ended December 31, 2018 included the costs of field trials for MosaiQ, which were underway during this period, and an expense of $0.5 million related to the costs of our intellectual property license with TTP for MosaiQ.

*General and administrative expenses*

General and administrative expenses increased by 19% to $23.0 million for the nine month period ended December 31, 2018, compared with $19.3 million for the nine month period ended December 31, 2017, reflecting greater personnel-related costs as we move towards commercialization of MosaiQ, advisory fees and costs of $1.3 million associated with the relocation of our manufacturing facility in Scotland. We recognized $3.6 million of stock compensation expense in the nine month period ended December 31, 2018 compared with $3.5 million in the nine month period ended December 31, 2017. As a percentage of total revenue, general and administrative expenses increased to 110% for the nine month period ended December 31, 2018, compared with 104% for the nine month period ended December 31, 2017.

*Other income (expense)*

Net interest expense was $14.6 million for the nine month period ended December 31, 2018, compared with $11.7 million for the nine month period ended December 31, 2017. Interest expense in the nine month period ended December 31, 2018 included $9.7 million of interest charges on our Secured Notes compared with $7.5 million in the nine month period ended December 31, 2017. The increase was due to the additional issuance of $36 million of Secured Notes on June 29, 2018. Interest expense in the nine month periods ended December 31, 2018 and December 31, 2017 included amortization of deferred debt issue costs of $4.1 million and $3.4 million, respectively, which included, in the 2018 period, amortization of the expected costs of the royalty rights agreements entered into in October 2016, June 2018 and December 2018 in connection with the issuances of the Secured Notes and the amendment of the indenture relating to the Secured Notes and, in the 2017 period, amortization of the expected costs of the royalty rights agreements entered into in October 2016. Net interest expense also included $0.8 million of dividends accrued on the 7% cumulative redeemable preference shares in each of the nine month periods ended December 31, 2018 and December 31, 2017.

Other expense for the nine month period ended December 31, 2018 of $5.5 million was comprised of $4.6 million of foreign exchange losses arising on monetary assets and liabilities denominated in foreign currencies and $0.9 million of fees related to the amendment of the indenture relating to the Secured Notes in December 2018. Other income for the nine month period ended December 31, 2017 comprised $1.5 million of foreign exchange gains.

*Provision for income taxes*

Provision for income taxes reflects a reduction in the net operating losses available for carrying forward in one subsidiary as a result of the offset of historic tax losses against the profits of this subsidiary.

**Quarterly Results of Operations**

Our quarterly product sales can fluctuate depending upon the shipment cycles for our red blood cell based products, which account for approximately two-thirds of our current product sales. For our sales of these products in Europe, we typically experience 13 shipping cycles per year. This equates to three shipments of each product per quarter, except for one quarter per year when four shipments occur. For our sales of these products in the United States, we ship on a two-week cycle, which also results in different numbers of shipments between quarters. In fiscal 2018, the greatest impact of extra product shipments occurred in our first quarter and the greatest impact thus far in fiscal 2019 has also occurred in the first quarter. The timing of shipment of bulk antisera products to our OEM customers may also impact revenues from quarter to quarter. We also experience some seasonality in demand around holiday periods in both Europe and the United States. As a result of these factors, we expect to continue to see seasonality and quarter-to-quarter variations in our product sales. The timing of product development fees included in other revenues is mostly dependent upon the achievement of pre-negotiated project or revenue milestones.

**Liquidity and Capital Resources**

Since our commencement of operations in 2007, we have incurred net losses and negative cash flows from operations. As of December 31, 2018, we had an accumulated deficit of $354.4 million. During the nine month period ended December 31, 2018, we incurred a net loss of $78.8 million and used $61.5 million of cash in operating activities. As described under results of operations, our use of cash during the nine month period ended December 31, 2018 was primarily attributable to our investment in the development of MosaiQ and corporate costs, including costs related to being a public company.

From our incorporation in 2012 to March 31, 2018, we have raised $110.8 million of gross proceeds through the private placement of our ordinary and preference shares and warrants, $181.1 million of gross proceeds from public offerings of our shares and issuances of ordinary shares upon exercise of warrants and $84.0 million of gross proceeds from the issuance of the Secured Notes.

On June 29, 2018, we issued an additional $36.0 million aggregate principal amount of the Secured Notes. As referenced above, we previously issued $84.0 million aggregate principal amount of the Secured Notes on October 14, 2016. On June 29, 2018, we paid $2.2 million of the net proceeds of the issuance of the additional Secured Notes into the cash reserve account maintained with the collateral agent under the terms of the indenture governing the Secured Notes, which together with the $5.0 million paid into the cash reserve account on October 14, 2016, brought the total in the cash reserve account to $7.2 million at December 31, 2018.

In the period between March 31, 2018 and July 31, 2018, 8,414,683 warrants that were previously issued in connection with our October 2017 private placement of ordinary shares were exercised for 8,414,683 ordinary shares at $5.80 per share, which generated $48.8 million of proceeds.

On August 3, 2018, we entered into two subscription agreements with Franz Walt, our Chief Executive Officer, and with Heino von Prondzynski, our Chairman, pursuant to which we issued a combined total of 55,000 ordinary shares at a price of $7.54 per share for aggregate proceeds of $0.4 million.

On December 11, 2018, we completed a public offering of 10,615,385 newly issued ordinary shares at a price of $6.50 per share which raised $69 million of gross proceeds before underwriting discounts and other offering expenses.

On December 18, 2018, we completed certain amendments to the indenture governing the Secured Notes. These amendments included a six-month extension of the final maturity of the Secured Notes to April 2024 and a revision of the Secured Notes' principal amortization (previously scheduled to commence semi-annually beginning April 2019) to commence April 2021, in order to better align the maturity and amortization schedule with our financial goals. The revised amortization schedule defers approximately $39.6 million of principal amortization previously scheduled to occur between April 2019 and April 2021. In addition, the amendments include a one-year extension of the optional redemption call schedule to October 2022. In consideration for the consents to the amendments, we paid to the noteholders a one-time consent payment of $3.9 million and we issued additional royalty rights to the noteholders, which increased in the aggregate the amount of the royalties payable under the royalty rights that were previously issued by us in connection with the prior issuances of the Secured Notes by 1%, from 2% to 3%, of the aggregate net sales of MosaiQ instruments and consumables in specified markets.

The amendments also included an increase to the aggregate principal amount of Secured Notes that can be issued under the indenture from $120.0 million to up to $145.0 million following the European CE Marking of the Company's initial MosaiQ IH Microarray. On January 15, 2019, we entered into purchase agreements pursuant to which we agreed to issue and certain purchasers agreed to purchase the additional $25 million of the Secured Notes, subject to the European CE Marking of the Company's initial MosaiQ IH Microarray occurring on or before April 30, 2019 and certain other customary closing conditions.

As of December 31, 2018, we had available cash, cash equivalents and short-term investments of $107.7 million and $7.5 million of restricted cash held as part of the arrangements relating to our Secured Notes and the lease of our property in Eysins, Switzerland.

***Cash Flows for the Nine month Periods ended December 31, 2018 and 2017***

*Operating activities*

Net cash used in operating activities was $61.5 million during the nine month period ended December 31, 2018, which included net losses of $78.8 million offset by non-cash items of $18.7 million. Non-cash items were depreciation and amortization expense of $9.5 million, share-based compensation expense of $3.6 million, Swiss pension costs of $0.5 million, amortization of deferred debt issue costs of $4.1 million, accrued preference share dividends of $0.8 million and an increase in the deferred lease rental benefit of $0.3 million. We also experienced a net cash outflow of $1.4 million from changes in operating assets and liabilities during the period, consisting of a $5.1 million reduction in accounts payable and accrued liabilities and a $0.7 million reduction in accrued compensation and benefits, offset by a $0.3 million decrease in accounts receivable, a $0.1 million decrease in inventories and a $3.8 million decrease in other assets.

Net cash used in operating activities was $52.9 million during the nine month period ended December 31, 2017, which included net losses of $62.2 million offset by non-cash items of $15.5 million. Non-cash items were depreciation and amortization expense of $7.7 million, share-based compensation expense of $3.5 million, Swiss pension costs of $0.5 million, amortization of deferred debt issue costs of $3.4 million and accrued preference share dividends of $0.8 million, offset by amortization of lease rental benefit of $0.3 million. We also experienced a net cash outflow of $6.2 million from changes in operating assets and liabilities during the period, consisting of a $2.3 million increase in inventories, a $4.1 million reduction in accounts payable and accrued liabilities and a $0.9 million reduction of accrued compensation and benefits, offset by a $0.7 million decrease in accounts receivable and a $0.5 million decrease in other assets.

*Investing activities*

Net cash used in investing activities was $100.2 million for the nine month period ended December 31, 2018 and $29.0 million for the nine month period ended December 31, 2017. We spent $3.0 million on purchases of property and equipment in the nine month period ended December 31, 2018, which was mainly related to the payment of final costs related to the construction of our new Biocampus manufacturing facility. Purchases of property and equipment in the nine month period ended December 31, 2017 were $17.3 million, which was mainly related to the construction of our new Biocampus manufacturing facility. We also invested $97.1 million net and $11.6 million net in short-term money market funds in the nine month periods ended December 31, 2018 and December 31, 2017, respectively, and we purchased $0.1 million of intangible assets in the nine month period ended December 31, 2017.

*Financing activities*

Net cash provided by financing activities was $144.3 million during the nine month period ended December 31, 2018, consisting of $34.8 million of net proceeds from the issuance of additional Secured Notes on June 29, 2018, payment of $3.9 million of consent fees in December 2018 related to the amendment of the indenture relating to the Secured Notes in December 2018 and $113.7 million of proceeds from the issuance of ordinary shares (including $49.2 million in connection with the exercise of warrants and share options), offset by $0.4 million of repayments on finance leases. Net cash provided by financing activities was $84.9 million during the nine month period ended December 31, 2017, consisting of $85.0 million of net proceeds from the issuance of ordinary shares and warrants and exercise of share options offset by $0.1 million of repayments on finance leases.

**Operating and Capital Expenditure Requirements**

We have not achieved profitability on an annual basis since we commenced operations in 2007 and we expect to incur net losses for at least the next fiscal year. As we move towards the commercial launch of MosaiQ, we expect our operating expenses during the year ended March 31, 2019 to continue at similar or slightly increased levels to those of the year ended March 31, 2018, as we continue to invest in growing our customer base, expanding our marketing and distribution channels, hiring additional employees and investing in other product development opportunities while our development expenditures on MosaiQ decrease.

As of December 31, 2018, we had available cash, cash equivalents and short-term investments of $107.7 million and $7.5 million of restricted cash held as part of the arrangements relating to our Secured Notes and the lease of our property in Eysins, Switzerland.

Our future capital requirements will depend on many factors, including:

- our progress in developing and commercializing MosaiQ and the cost required to complete development, obtain regulatory approvals and complete our manufacturing scale up;
- Ortho's progress in commercializing MosaiQ for the patient testing market;
- our ability to manufacture and sell our conventional reagent products, including the costs and timing of further expansion of our sales and marketing efforts;
- our ability to collect our accounts receivable;
- our ability to generate cash from operations;
- any acquisition of businesses or technologies that we may undertake; and
- our ability to penetrate our existing market and new markets.

We expect to fund our operations, including the ongoing development of MosaiQ through successful field trial completion, achievement of required regulatory authorizations and commercialization from the use of existing available cash and short-term investment balances and the issuance of new equity or debt. Our existing available cash and short-term investment balances are adequate to meet our forecasted cash requirements for the next twelve months and accordingly we have prepared the financial statements on the going concern basis.

**Contractual Obligations**

Our contractual obligations and commitments were summarized in our Annual Report on Form 10-K for the year ended March 31, 2018.

On June 29, 2018, we issued an additional $36 million aggregate principal amount of the Secured Notes and entered into additional royalty rights agreements with the purchasers of the Secured Notes. On December 18, 2018, we completed certain amendments to the indenture governing the Secured Notes as described above under "Our Business". As a result of these transactions, the aggregate amounts payable under the Secured Notes is $120.0 million, with $0 million due in less than a year, $20.0 million due in 1-3 years, $75.0 million due in 3-5 years and $25.0 million due in more than 5 years. Interest payments due on the Secured Notes total $61.8 million with $14.4 million due in less than a year, $28.2 million due in 1-3 years, $17.7 million due in 3-5 years and $1.5 million due in more than 5 years. The aggregate estimated amount payable in connection with the royalty rights agreements is $85.3 million, with $0 due in less than a year, $3.2 million due in 1-3 years, $16.4 million due in 3-5 years and $65.7 million due in more than 5 years.

There were no other major changes in the nature of our contractual obligations and commitments between March 31, 2018 and December 31, 2018.

**Critical Accounting Policies and Significant Judgments and Estimates**

We have prepared our condensed consolidated financial statements in accordance with U.S. GAAP. Our preparation of these condensed consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, expenses and related disclosures at the date of the consolidated financial statements, as well as revenue and expenses during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our condensed consolidated financial statements included in this Quarterly Report, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

***Revenue recognition and accounts receivable***

Revenue is recognized in accordance with ASU 2014-09, *Revenue from Contracts with Customers.* Product revenue is recognized at a point in time which is generally at the time of delivery of products to customers.

We also earn revenue from the provision of development services to a small number of OEM customers. These development service contracts are reviewed individually to ensure that our revenue recognition is in accordance with applicable accounting standards. In recent years, our product development revenues have been commensurate with achieving milestones specified in the respective development agreements relating to those products. These milestones may include the approval of new products by the European or U.S. regulatory authorities, which are not within our control. While there can be no assurance that we will earn product development revenues when milestones are achieved, the nature of the milestones have been such that they effectively represent full completion of a particular part of a development program. As a result, we typically fully recognize milestone-related revenues as the milestones are achieved in accordance with applicable accounting standards.

Under certain development contracts, we also manufacture and supply the customer with finished products once they have been approved for use by relevant regulatory agencies. These agreements reflect both arrangements for product development and the sales prices and other contractual terms for subsequent supply of the product to the customer. Under these development contracts, we view the development service revenue as distinct from subsequent product sales revenue, and we recognize each separately as described above.

Accounts receivable consist primarily of amounts due from OEM customers, hospitals, donor testing laboratories, and distributors. Accounts receivable are reported net of an allowance for uncollectible accounts, which we also refer to as doubtful accounts. The allowance for doubtful accounts represents a reserve for estimated losses resulting from our inability to collect amounts due from our customers. Direct sales, where we may make many low value sales to a large number of customers, represents a larger risk of doubtful accounts, as opposed to OEM customer sales consisting primarily of a small number of well established businesses with whom we have a long trading history. The collectability of our trade receivables balances is regularly evaluated based on a combination of factors such as the ageing profile of our receivables, past history with our customers, changes in customer payment patterns, customer credit-worthiness and any other relevant factors. Based on these assessments, we adjust the reserve for doubtful accounts recorded in our financial statements.

***Inventories***

We record inventories at the lower of cost (first-in, first-out basis) or market (net realizable value), net of reserves. We record adjustments to inventory based upon historic usage, expected future demand and shelf life of the products held in inventory. We also calculate our inventory value based on the standard cost of each product. This approach requires us to analyze variances arising in the production process to determine whether they reflect part of the normal cost of production, and should therefore be reflected as inventory value, or whether they are a period cost and should thus not be included in inventory.

***Intangible assets***

The intangible assets included in our financial statements include intangible assets identified as at the time of the acquisition of the business of Alba Bioscience on August 31, 2007. At the time of this acquisition, we identified intangible assets related to customer relationships, master cell lines and certain other items, which include domain names and product trademarks. The customer relationships have been amortized over a five-year period, which resulted in them becoming fully amortized at August 31, 2012. The other items were amortized over a seven-year period from August 31, 2007, which resulted in them becoming fully amortized at August 31, 2014.

The intangible assets related to master cell lines reflect the know-how and market recognition associated with the cell lines, which are used as the source material of certain of our products. These cell lines are maintained by us and have an indefinite life. We have nevertheless decided to amortize the intangible assets over a forty-year period to reflect the possibility of market changes or other events resulting in the lines becoming technically obsolete at some future date. In the event that any of the lines cease to be used, we would record additional amortization at that point.

We also include in intangible assets the costs of obtaining product licenses for our products. These include external costs such as regulatory agency fees associated with the approval and bringing to market of our products once the development is complete. We amortize these over an expected product life of ten years, although if any such product ceased to be produced, we would record additional amortization at that point.

***Income taxes***

We account for income taxes under the asset and liability method, which requires, among other things, that deferred income taxes be provided for temporary differences between the tax basis of our assets and liabilities and their financial statement reported amounts. In addition, deferred tax assets are recorded for the future benefit of utilizing NOLs and research and development credit carry forwards. A valuation allowance is established when necessary to reduce deferred tax assets to the amount expected to be realized.

We follow the accounting guidance for uncertainties in income taxes, which prescribes a recognition threshold and measurement process for recording uncertain tax positions taken, or expected to be taken, in a tax return in the financial statements. Additionally, the guidance also prescribes the derecognition, classification, accounting in interim periods and disclosure requirements for uncertain tax positions. We accrue for the estimated amount of taxes for uncertain tax positions if it is more likely than not that we would be required to pay such additional taxes. An uncertain tax position will not be recognized if it has less than a 50% likelihood of being sustained. We did not have any accrued interest or penalties associated with any unrecognized tax positions, and there were no such interest or penalties recognized during the nine month period ended December 31, 2018 or in the year ended March 31, 2018.

***Stock compensation expense***

Stock compensation expense is measured at the grant date based on the fair value of the award and is recognized as an expense in the income statement over the vesting period of the award. The calculation of the stock compensation expense is sensitive to the fair value of the underlying ordinary shares. The fair value of option awards and multi-year performance based restricted share units or MRSUs at the grant date is calculated using the Black-Scholes model or other valuation models, which use a number of assumptions to determine the fair value. Details of the assumptions used are set out in the notes to the condensed consolidated financial statements included in this Quarterly Report.

***Defined Benefit Pension Obligations***

We account for the pension obligations of our Swiss subsidiary as a defined benefit plan under Accounting Standards Codification Topic, 715 *Compensation – Retirement Benefits* or ASC 715. This requires that an actuarial valuation be performed to determine the funded status of the pension arrangements. The actuarial valuation is based on a number of assumptions, details of which are set out in the notes to the audited consolidated financial statements included in our Annual Report on Form 10-K for the fiscal year ended March 31, 2018.

***Royalty Liability***

The royalty rights agreements entered into in connection with the issuances of our Secured Notes and the amendment of the related indenture are treated as sales of future revenues that meet the requirements of Accounting Standards Codification Topic 470 "*Debt*" to be treated as debt. The estimated future cash outflows under the royalty rights agreements have been combined with the Secured Notes issuance costs and interest payable to calculate the effective interest rate of the Secured Notes and will be expensed through interest expenses using the effective interest rate method over the term of the Secured Notes and royalty rights agreements. Estimating the future cash outflows under the royalty rights agreements requires us to make certain estimates and assumptions about future sales of MosaiQ products. These estimates of the magnitude and timing of MosaiQ sales are subject to significant variability due to the current status of development of MosaiQ products, and thus are subject to significant uncertainty. Therefore, the estimates are likely to change as we gain experience of marketing MosaiQ, which may result in future adjustments to the accretion of the interest expense and the amortized cost based carrying value of the Secured Notes.

**Off-Balance Sheet Arrangements**

We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for any other contractually narrow or limited purpose.

**Recent Accounting Pronouncements**

Refer to Note 2 to our accompanying unaudited condensed consolidated financial statements included elsewhere in this report for a discussion of recently issued accounting pronouncements.

**JOBS Act**

Under the Jumpstart Our Business Startups Act of 2012, emerging growth companies that become public can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

**Item 3. Quantitative and Qualitative Disclosures About Market Risk**

We are exposed to market risks in the ordinary course of our business. These market risks are principally limited to interest rate fluctuations and foreign currency exchange rate fluctuations.

**Interest rate sensitivity**

We are exposed to market risk related to changes in interest rates as it impacts our interest income and expense.

***Cash, cash equivalents and cash reserve account***. At December 31, 2018, we had cash and cash equivalents of $4.5 million and we also held $7.5 million of restricted cash. Our exposure to market risk includes interest income sensitivity, which is impacted by changes in the general level of U.S. and European interest rates. Our cash and cash equivalents and the restricted cash are held in interest-bearing savings accounts and bank accounts. We do not enter into investments for trading or speculative purposes. Due to the current levels of interest rates, we do not believe an immediate one percentage point change in interest rates would have a material effect on the fair market value of our holdings, and therefore we do not expect our operating results or cash flows to be significantly affected by changes in market interest rates.

***Senior secured notes***. At December 31, 2018, we had term debt of $120 million outstanding under the Secured Notes. The Secured Notes are fixed-rate instruments and, as a result, a change in market interest rates has no impact on our interest expense incurred or cash flows.

**Foreign currency exchange risk**

The main currencies that we use for our trading operations are the U.S. Dollar, the Pound Sterling, the Swiss Franc and, to a lesser extent, the Euro. Our meaningful cash balances are held in a mixture of U.S. Dollars, Euros, Pounds Sterling and Swiss Francs. These cash balances may not be the same as the functional currencies of the Quotient entities in which they are held and, as a result, exchange rate fluctuations may result in foreign exchange gains and losses on our income statement.

We are subject to market risks arising from changes in foreign currency exchange rates between the U.S. Dollar and the Pound Sterling and the U.S. Dollar and the Swiss Franc. Accordingly, fluctuations in the U.S. Dollar versus Pounds Sterling and U.S. Dollar versus the Swiss Franc exchange rate give rise to exchange gains and losses. These gains and losses arise from the conversion of U.S. Dollars and Euros to Pounds Sterling and the retranslation of cash, accounts receivable, intercompany indebtedness and other asset and liability balances. Based on our assets and liabilities held in Pounds Sterling at December 31, 2018, we estimate that a 5% strengthening of the Pound Sterling against the U.S. Dollar would give rise to a gain of approximately $0.8 million and a 5% weakening of the Pound Sterling against the U.S. Dollar would give rise to loss of approximately $0.8 million. Based on our assets and liabilities held in Swiss Francs at December 31, 2018, we estimate that a 5% strengthening of the Swiss Franc against the U.S. Dollar would give rise to a gain of approximately $1.4 million and a 5% weakening of the Swiss Franc against the U.S. Dollar would give rise to loss of approximately $1.4 million.

Most of our revenues are earned in U.S. Dollars, but the costs of our conventional reagent manufacturing operations are payable mainly in Pounds Sterling. We therefore closely monitor the results of our UK operations to address this difference. During the year ended March 31, 2018, the net operating expenses arising in Pounds Sterling from our UK conventional reagent manufacturing operations amounted to $18.8 million. This expenditure was offset by revenues arising in U.S. Dollars and other currencies. We have entered into forward contracts to hedge against the effects of fluctuations in the U.S. Dollar versus the Pounds Sterling exchange rate. The principal value of the hedges related to the results of fiscal year 2019 is $6.0 million and, based on this, a hypothetical instantaneous 5% strengthening of the Pound Sterling against the U.S. Dollar would reduce our net income by $0.6 million in the year ending March 31, 2019 after taking account of the shelter provided by our existing hedging arrangements through March 31, 2019. Similarly, a hypothetical instantaneous 5% weakening of the Pound Sterling against the U.S. Dollar would increase group net income by $0.6 million over the same period.

We do not use financial instruments for trading or other speculative purposes.

Our management does not believe that inflation in past years has had a significant impact on our results from operations. In the event inflation affects our costs in the future, we will offset the effect of inflation and maintain appropriate margins through increased selling prices.

**Item 4. Controls and Procedures**

**Evaluation of disclosure controls and procedures**

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this Quarterly Report on Form 10-Q. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of December 31, 2018, due to our identification of a material weakness in connection with our evaluation of the effectiveness of our internal control over financial reporting as of March 31, 2018, as further described in Item 9A of our Annual Report on Form 10-K for the year ended March 31, 2018, our disclosure controls and procedures were not effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to our management, including our Chief Executive and Chief Financial Officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

We are in the process of taking the following steps to implement a remediation plan for the material weakness in internal control over financial reporting described in Item 9A of our Annual Report on Form 10-K for the year ended March 31, 2018:

- increase involvement of third party tax advisers to assist and review the tax implications of complex, non-routine transactions; and
- adopt and implement specific management review control procedures around the use of specialists, specifically the review of tax advice and the related accounting treatment under US GAAP.

Based on the foregoing processes and remediation measures, management believes that the above mentioned control deficiencies will be remediated, but the material weaknesses cannot be considered remediated until the applicable remedial controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

**Changes in internal control over financial reporting**

Other than the remediation measures noted above, there were no other material changes to our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the period covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. As part of our Annual Report on Form 10-K for the year ending March 31, 2019, we will provide a report of management on our internal control over financial reporting, including management's assessment of the effectiveness of our internal control over financial reporting as of March 31, 2019 following the implementation of this remediation plan.

## PART II – OTHER INFORMATION

### Item 1. Legal Proceedings

We are not currently a party to any pending legal proceedings that we believe could have a material adverse effect on our business or financial condition. However, we may be subject to various claims and legal actions arising in the ordinary course of business from time to time.

### Item 1A. Risk Factors

There have been no material changes in the risk factors described in Item 1A "Risk Factors" of our Annual Report on Form 10-K for the year ended March 31, 2018.

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

None.

### Item 3. Defaults Upon Senior Securities

None.

### Item 4. Mine Safety Disclosures

Not applicable.

### Item 5. Other Information

None.

**Item 6. Exhibits**

The following is a list of exhibits filed as part of this Quarterly Report on Form 10-Q:

| Exhibit No. | Description |
|---|---|
| 4.1 | First Supplemental Indenture, dated as of December 4, 2018, among Quotient Limited, the Guarantors from time to time party thereto and U.S. Bank National Association, as trustees and collateral agent (filed as exhibit 4.1 to our Form 8-K filed on December 5, 2018 and incorporated herein by reference) |
| 10.1 | Form of Royalty Rights Agreements entered into in consideration for the consents to the amendments contained in the First Supplemental Indenture dated as of December 4, 2018 (filed as exhibit 10.1 to our Form 8-K filed on December 5, 2018 and incorporated herein by reference) |
| 10.2 | Supply Agreement between Alba Bioscience Limited and Ortho-Clinical Diagnostics, Inc. entered into on December 17, 2018 |
| 10.3+ | Second Amendment to TTP Intellectual Property Rights Agreement, dated April 24, 2017, between The Technology Partnership plc and QBD (QS-IP) Limited (filed as exhibit 99.2 to our Form 8-K filed on December 5, 2018 and incorporated herein by reference) |
| 10.4+ | First Amendment to STRATEC Supply and Manufacturing Agreement, dated December 19, 2016, between STRATEC Biomedical AG and QBD (QS IP) Limited (filed as exhibit 99.3 to our Form 8-K filed on December 5, 2018 and incorporated herein by reference) |
| 31.1 | Certification of Franz Walt, Chief Executive pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 31.2 | Certification of Christopher Lindop, Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 |
| 32.1 | Certification of Franz Walt, Chief Executive pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 32.2 | Certification of Christopher Lindop, Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 101* | The following financial statements from the Company's Quarterly Report on Form 10-Q for the quarter ended December 31, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets (unaudited), (ii) Condensed Consolidated Statements of Comprehensive Loss (unaudited), (iii) Condensed Consolidated Statements of Changes in Shareholders' Deficit (unaudited), (iv) Condensed Consolidated Statements of Cash Flows (unaudited) and (v) Notes to Condensed Consolidated Financial Statements, tagged as blocks of text and including detailed tags. |

* XBRL information is furnished and not filed for purposes of Section 11 and 12 of the Securities Act of 1933 and Section 18 of the Securities Exchange Act of 1934, and is not subject to liability under those sections, is not part of any registration statement, prospectus or other document to which it relates and is not incorporated or deemed to be incorporated by reference into any registration statement, prospectus or other document.

+ The Company has omitted portions of the referenced exhibits pursuant to a request for confidential treatment under Rule 24b-2 of the Securities Exchange Act of 1934, as amended.

**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.

QUOTIENT LIMITED

Date: February 5, 2019

/s/ Franz Walt
Franz Walt
Chief Executive Officer

**Exhibit 10.2**
*Execution Version*
*November 19, 2018*

# SUPPLY AGREEMENT

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This Supply Agreement (the "**Agreement**") effective as of January 1, 2017 (the "**Effective Date**") by and between Ortho-Clinical Diagnostics, Inc., a New York corporation with an address at 1001 US Route 202, Raritan, New Jersey 08869 ("**Ortho**"), and ALBA BIOSCIENCE LIMITED a company with its principal place of business at 5 James Hamilton Way, Biocampus, Bush Loan, Penicuik, Scotland EH26 0BF UK ("**Alba"**).

## RECITALS

WHEREAS, Ortho and Alba, as successor in interest to the Scottish National Blood Transfusion Service, entered into an Umbrella Supply Agreement dated December 1, 2004 ("Umbrella Agreement") for the manufacture, supply and sale of certain products contained within the Umbrella Agreement and associated Product Attachments; and

WHEREAS, Ortho develops, manufactures, sells and distributes medical devices and would like to purchase certain products from Alba hereunder to be used as a medical device; and

WHEREAS, Alba has the experience, authorizations, facilities and capacity required to manufacture and sell Product (as defined below), and Ortho would like to purchase Product from Alba pursuant to the terms of this Agreement; and

WHEREAS, Ortho and Alba have entered into a Quality Agreement effective as of October 11, 2016 which allocates certain responsibility for quality standards applicable to the Products; and

WHEREAS, Alba and Ortho entered into Product Attachment No. 5 to the Umbrella Agreement, effective June 1, 2013 for the supply of certain products and other services by Alba to Ortho; and

WHEREAS, upon execution of this Agreement, Alba and Ortho intend to terminate the Umbrella Agreement, together with all Product Attachments thereto and enter into this Supply Agreement.

NOW, THEREFORE, in consideration of the mutual promises, covenants and agreements hereinafter set forth, the parties hereto agree as follows:

## ARTICLE 1
## DEFINITIONS

As used throughout this Agreement, each of the following terms shall have the respective meaning set forth below:

1.01 "**Affiliate**" of a party shall mean: (i) when applicable to Alba, any entity that directly or indirectly controls, is controlled by or is under common control with such entity (control with respect to Alba shall mean ownership or interest, direct or indirect, in at least fifty percent (50%) of such Alba, either through the ownership of such Alba's stock, voting power, membership interest or otherwise, or the power to direct the management and policies of such Alba); and (ii) when applicable to Ortho, Ortho-Clinical Diagnostics Bermuda Co. Ltd., a Bermuda exempted limited liability company, and its subsidiaries.

1.02 "**CPI**" shall mean the latest UK Consumer Price Index as defined by the UK Office for National Statistics ( https://www.ons.gov.uk/economy/inflationandpriceindices ) on 1st October each year.

1.02"**Exclusive Product(s)**" shall mean Products listed on Schedule A-1 that are manufactured and packaged in accordance with the Exclusive Product Specifications (hereinafter defined), along with any Improvements thereto.

1.03 "**Exclusive Product Specifications**" shall mean the specifications for the design, composition, product safety assurance, manufacture, packaging, and/or quality control of the Exclusive Products, as set forth on Schedule B-1 attached hereto.

1.04 "**Facility**" shall mean the facility or facilities of Alba currently located at (i) Ellens Glen Road, Edinburgh, Scotland, (ii) Douglas House, Pentlands Science Park, Bush Loan, Penicuik, Scotland, or (iii) Allan-Robb Campus, 5 James Hamilton Way, Penicuik, Edinburgh, Scotland such locations to be amended if changed during the Term of this Agreement.

1.05 "**Improvement**" shall mean any change, improvement, modification or development to Product, the Specifications, the Raw Materials or the method or process of manufacture or production of Product.

1.06 "**Intellectual Property Rights**" shall mean the intellectual property, trade secrets, know-how, technology and information, whether or not protected by patents, that are required in order to make Product.

1.07 **"Labeling**" shall mean all artwork and text associated with the Products, Product packaging and other associated Product documentation, including instructions for use (IFU).

1.08 "**Non-Exclusive Product(s)**" shall mean Products listed on Schedule A-2 that are manufactured by Alba and packaged in accordance with the Non-Exclusive Product Specifications (hereinafter defined), along with any Improvements thereto.

1.09 "**Non-Exclusive Product Specifications**" shall mean Alba's specifications for the design, composition, product safety assurance, manufacture, packaging, and/or quality control of the Non-Exclusive Products, as set forth on Schedule B-2 attached hereto.

1.10 "**OrthoSera Products**" shall mean the so-named subset of Exclusive Products listed on Schedule A-1 whose intended use is for use as blood grouping reagents for extended phenotyping performed in Column Agglutination Technology (CAT).

1.12 "**Outstanding Development Milestone**" shall mean the development milestones set in Section 1 of the Second Milestone Letter (which is set forth hereto as Schedule K), provided that Alba has to seek FDA approval for all rare antisera reagents set forth in Section 1 of the Milestone Letter except for anti-M.

1.13 "**Product(s)**" shall collectively mean the Exclusive and Non-Exclusive Products as defined herein.

1.14 "**Quality Agreement**" shall mean that certain Quality Agreement effective October 11, 2016 between Ortho and Alba, attached hereto as Schedule J, as may be amended from time to time. The terms of the Quality Agreement are incorporated by reference into this Agreement and are considered terms of this Agreement.

1.15 "**Raw Materials**" shall mean the materials, components, and packaging required to manufacture and package Product in accordance with the applicable Specifications.

1.16 "**Regulatory Authority**" means any governmental agency or authority regulating the manufacture, packaging, sale, shipment or storage of Product.

1.17 "**Specifications**" shall collectively mean the Exclusive Product Specifications and the Non-Exclusive Product Specifications, as defined herein.

1.18 "**Term**" shall consist of the Initial Term plus any extensions elected in accordance with Section 7.02.

1.19 "**TPM**" means Third Party Manufacturer.

1.20 "**Trade Dress**" shall mean packaging, labeling, trademarks, copyrights, slogans, artwork, text, instructions for use and all other intellectual property that appear on or are otherwise used in connection with the sale and use of a Product hereunder.

## ARTICLE 2
## SUPPLY OF PRODUCT; COMPLETION OF OUTSTANDING DEVELOPMENT MILESTONE

2.01 Supply of Product. During the term of this Agreement, Alba shall manufacture and supply to Ortho, and Ortho shall purchase from Alba, those quantities of Product ordered by Ortho in accordance with Article 4. The Parties acknowledge that Ortho is not obligated to buy any minimum or specific amount of Product under this Agreement except for the quantities of Product defined in Schedule A Part I that Ortho orders through binding purchase orders. Without limiting the effect of the foregoing, Ortho acknowledges that it will not place a purchase order for a batch size less than the minimum batch size, if any, set forth on Schedule A-1 and A-2.

2.02 Raw Materials. All Raw Materials shall be procured by Alba in accordance with applicable laws and regulations. Alba shall be responsible for the quality of the Raw Materials used in the manufacture of Products and for their conformity with the Exclusive Product Specifications or the Non-Exclusive Product Specifications, whichever are applicable.

2.03 Affiliates and TPMs. From time to time during the Term, Ortho may direct Affiliates and TPMs to purchase Products from Alba for the benefit of Ortho. Alba agrees that it will provide each designated Affiliate or TPM with such Products on the same terms and conditions set

forth in this Agreement. Alba and Ortho acknowledge that while Alba is affording the Affiliate or TPM the benefit of terms of this Agreement, the relationship between Alba and TPM is an independent relationship and Ortho is not a party to such relationship or any agreement between such parties. Alba acknowledges and agrees that Ortho is not ensuring that any Affiliate or TPM will, nor is any Affiliate or TPM committed or obligated to, purchase any minimum or specific amount of Product from Alba and Ortho is not obligated to make any payments to Alba on behalf of such Affiliate or TPM.

2.04 Manufacturing Facility. All Product made under this Agreement shall be manufactured, packaged and stored only at Alba's Facility. Alba's Facility shall meet or exceed all applicable requirements for development, manufacture, sale and distribution to intended markets, including but not limited to cGMPs as they relate to Product. Alba also agrees to make any changes to its Facility and/or manufacturing processes necessary to comply with its obligations under this Agreement. Any changes made by Alba to its Facilities, processes and equipment shall be made only in accordance Article 6 (Improvements and Change to Process).

2.05 Completion of Outstanding Development Milestone. Alba and Ortho executed a so-called milestone letter dated July 21, 2016 (the "**First Milestone Letter**"). The parties hereby agree to replace the First Milestone Letter with the amended and restated milestone letter as attached hereto in Schedule K ("**Second Milestone Letter**").

2.06 Termination of Product Attachment # 5. The parties entered into a product attachment # 5 ("**Product Attachment # 5**") effective June 13, 2013 for the supply and purchase of the OrthoSera Products to Ortho. The OrthoSera Products are not yet approved by the FDA for use with Ortho's VISION and VISION MAX instruments. Alba shall validate the OrthoSera Product for use on Ortho's VISION and VISION MAX instruments and make regulatory filings in accordance with Schedule M. With effect as of September 1, 2018, the Parties hereby terminate Product Attachment # 5.

## ARTICLE 3
## PRICES FOR PRODUCT

3.01 Prices. The price for the Products shipped by Alba until 31st Dec 2020 shall be as set forth in Schedule A-1 and A-2.

3.02 Price Adjustments.

(a) With effect from January 2021 and every contract year thereafter, the Price of each Product shall increase or decrease (as the case may be) by the same percentage that the UK CPI rate increases or decreases compared to the previous year (as at 1st October); minus three percent (3%).

3.03 Payment Terms. Ortho shall pay all undisputed invoices issued by Alba within 60 days after receipt of such invoice. Ortho shall remit payment by electronic bank transfer. All payments shall be in US dollars.

3.04 Taxes.

(a) *General*: Except as set forth in this Agreement, Ortho shall make all payments to Alba under this Agreement without deduction or withholding for any sales, use, gross receipts, excise, value-added, business, consumption, services, goods and services, withholding, personal property or other taxes (each individually referred to as "**Tax**"), except to the extent that any such deduction or withholding is required by Law or treaty. Each Party shall be responsible for taxes based on its own income, employment taxes of its own employees and for taxes on any property it owns or leases.

(b) *VAT, GST, Sales, Use and Similar Taxes*: If any taxing authority imposes a VAT, GST, sales, use, service, consumption, business or similar Tax upon payments under this Agreement, then Ortho agrees to pay that amount if specified in a valid invoice or supply exemption documentation; provided, however, that applicable Law requires Alba to charge and collect such Tax from Ortho and no valid exemption documentation has been supplied by Ortho to Alba. Alba is solely responsible for identifying, billing and collecting such required Taxes in all relevant federal, state, county, municipal and other taxing jurisdictions and for filing all required Tax returns in a timely manner. To the extent that Alba does not provide Ortho a valid invoice (i.e., an invoice compliant with this Agreement and the rules and regulations of the jurisdictions of both Alba and Ortho, including separate identification of the Tax where legally required), Alba shall assume any and all responsibility for non-compliance, including payment of the Tax and any interest and penalties. To the extent that a Tax is required by Law to be separately identified in Alba's billings to Ortho, Alba shall separately identify the Tax and assume any and all responsibility for non-compliance, including payment of the Tax and any interest and penalties. Each Party shall provide and make available to the other any resale certificates, information regarding out-of-state sales, treaty certification and any other exemption certificates or information requested by a Party.

3.05 Cost Improvement Program. Each year during the Term, Alba's intention is to reduce the manufacturing **cost** for Product for each upcoming year by 3 % over the preceding year through Ortho's and Alba's Cost Improvement Program ("**CIP**"). Alba acknowledges that it is familiar with the CIP and is committed toward achieving the targeted reduction each year. Such commitment may be achieved through a number of ways, including but not limited to savings achieved through contract pricing, distribution/storage costs, quality/inspection of Products, waste, overage, Set-up reduction, inventory, design changes, reduction of field service costs, manufacturing tools, manufacturing efficiencies and leveraging from new business opportunities.

## ARTICLE 4
## FORECASTS; ORDERS

4.01 Forecasts. At least once a year (or other frequency agreed upon between Alba and Ortho), Ortho shall provide Alba with a twelve (12) month, non-binding forecast of Ortho's expected requirements for Product for the then-current month plus the subsequent eleven (11) months (the "**Forecast**"). Each Forecast will extend out to a twelve (12) month horizon to facilitate planning on the part of Alba. Ortho and Alba will utilize Ortho's monthly (or other frequency agreed upon between Alba and Ortho), Sales and Operations Planning Process ("**S&OP**") to review the Forecasts, Ortho's orders, Alba's Product supply plans, Alba's capacity including Committed Capacity and Ortho's market demand changes. Alba will advise Ortho of monthly capacity limitations and reasonably expected capacity issues during the S&OP. **Committed Capacity** shall mean 150% of Forecast.

4.02 Orders.

(a) Ortho shall place any binding orders for Product by written or electronic purchase order to Alba ("**Purchase Order**") for shipment in accordance with lead time indicated for each Product on Schedule A-1 or A-2. Within five (5) days after receipt of a Purchase Order, Alba shall send Ortho a written acknowledgment of the Purchase Order, including specific acknowledgment of a delivery date, quantity and shipping terms.

(b) The parties acknowledge that Ortho is not obligated to buy any specific amount of Product, and Ortho shall not be responsible for Raw Material inventory beyond its obligations under such binding Purchase Orders.

4.03 Adjustments. Ortho may submit Purchase Orders to Alba for quantities of Product less than or in excess of the Forecast amounts up to the Committed Capacity. For

adjustments in excess of Committed Capacity, Alba agrees to use commercially reasonable efforts to fill those orders.

4.04 Delivery. Shipment locations for the Products ordered by Ortho are set forth in Schedules sA-1 and A-2 and Alba shall deliver Product to Ortho in accordance with the delivery date (or maximum 5 days early) specified in the Purchase Order. If Alba is unable to meet such any such delivery date, Alba shall so notify Ortho no later than 14 days prior to such delivery date. In the event that Alba is unable to deliver any Product by the desired delivery date and fails to notify Ortho of such inability, Ortho shall have the right to withhold, without penalty, 10% of the total invoice amount for such late delivery. In addition, if Alba is unable to deliver any Product to Ortho in accordance with the schedule of desired delivery dates for 3 consecutive months, then, regardless of whether Alba notified Ortho of such inability, Ortho shall be entitled to, upon 15 days' notice to Alba, either (i) withhold, without penalty, 10% of the total invoice amount for the late delivery that occurred in the last of the 3 consecutive months, and for every late delivery thereafter or (ii) terminate this Agreement. Ortho agrees that it will not exercise its right under clause (ii) above if Alba demonstrates to Ortho's satisfaction, Alba's willingness and ability to deliver Product in accordance with the schedule of desired delivery dates for the rest of the term of this Agreement.

4.05 Shortages. Ortho shall notify Alba in writing of any shortage in any shipment of Product within seven (7) days of Ortho receiving the shipment. Alba shall, at Ortho's option, refund to Ortho the Price paid for the quantity of the shortfall, or make up the shortfall, at no additional cost to Ortho, as soon as possible but no later than within seven (7) days if replacement stock is available, or, if no replacement stock is available, as soon as reasonably practicable after receiving such notice. Alba shall also refund Ortho for the shipping costs incurred by Ortho.

4.06 Conflicts. To the extent of any conflict or inconsistency between this Agreement and any Purchase Order, purchase order release, confirmation, acceptance or any similar document, the terms of this Agreement shall govern, unless the terms of such other agreement signed by the parties specifically indicate the parties' intention that such other agreement shall govern as to the term in conflict.

## ARTICLE 5
## ADDITIONAL UNDERSTANDINGS OF THE PARTIES

5.01 Most-Favored Customer. Subject to restrictions in Section 5.02, Alba represents and warrants that the Prices for the Products set forth in Schedule A-1 or A-2 are at least as low as the price charged by Alba to other buyers for the same Products or similar products. If, at any time during the Term, Alba charges any other buyer a lower price for the same Products or similar products, upon execution of the agreement between Alba and such other buyer Alba shall apply that price to the applicable Products or similar products under this Agreement. If Alba fails to meet the lower price, Ortho may, at its option, in addition to all of its other rights under this Agreement or at law, terminate this Agreement without liability with immediate effect. The Parties shall reflect any adjustment to pricing under this Section 5.01 in an amendment to Schedule A-1 or A-2, as applicable; provided, however, that, notwithstanding anything to the contrary contained in Section 5.01, the execution and delivery of any such amendment by each of the Parties will not be a condition to the effectiveness of such Price adjustment. During the term of this Agreement and for three (3) years thereafter, Alba agrees to:

i) keep written records related to its agreements with third parties, in sufficient detail to allow determination of whether Alba's has complied with Section 5.01; and

ii) permit a certified public accounting firm of nationally recognized standing selected by Ortho and reasonably acceptable to Alba to periodically examine any such written records contemplated in subsection (i) above, provided that (a) Ortho

must provide Alba with at least 7 days' advance notice of such audit, (ii) any such audit may not occur more than once every year, and (iii) the accounting firm shall only be entitled to disclose to Ortho whether or not Alba has complied with Section 5.01 of this Agreement and the reasoning supporting its conclusion. No other information shall be provided to Ortho. The fees charged by such accounting firm shall be paid by Ortho; provided, however, that if such audit uncovers a breach of Section 5.01, the fees of such accounting firm together with any overpayment uncovered shall be paid by Alba.

5.02 Exclusive Rights. During the Initial Term of this Agreement, or any extension hereof, and for one (1) year thereafter, (other than its manufacture of OrthoSera exclusively for Ortho) Alba shall not manufacture, promote, market, distribute, sell (directly or indirectly) by itself or through any third party or other intermediary any anti-sera product for use in column agglutination technology unless approved in writing by Ortho.

5.03 Equipment. In the event that Ortho has made, or will make, available certain equipment, tools or dies for Alba to use in manufacturing or otherwise producing Product, Alba shall use and maintain such equipment in accordance with the terms set forth in Schedule G.

5.04 Competing/Similar Products. Both Alba and Ortho recognize and acknowledge that Alba and Ortho and their Affiliates have been, and will continue to be, actively involved in the field of Transfusion Diagnostics. Each party acknowledges that, subject to any express limitations set forth in this Agreement, including in particular the prohibition on manufacture for third parties of OrthoSera Product or similar products, each party and its Affiliates may market, sell and distribute products which compete directly or indirectly with the Products and which may contain similar ingredients or technology as a Product, and may continue to market, sell and distribute these and other competing or similar products throughout the term of this Agreement. Alba acknowledges that Ortho and its Affiliates may have such products manufactured internally or by a third party.

5.05 Business Review Meetings. Representatives of Ortho and Alba shall hold regularly scheduled business review meetings ("**BRM**") to (a) review new and existing business initiatives and the quality systems used to manufacture Product, (b) discuss productivity improvements, opportunities to improve profitability, quality issues relating to Product, corrective action plans, complaint and support activities and market outlook; (c) review the established BCP; and (d) identify new business opportunities. The BRM shall be held at least once per calendar year; provided, that both parties agree to meet on an ad hoc basis if business reasons warrant. Alba understands and acknowledges that Ortho intends to measure Alba's overall performance under this Agreement. If Alba's performance rating is not satisfactory to Ortho, Alba and Ortho will discuss any concerns that Ortho raises regarding Alba's performance at the BRM.

5.06 Financial Collaboration Program; Audit. In an effort to protect the integrity of its supply chain, Ortho requires financial health monitoring of its suppliers. Accordingly, Alba shall comply with the following:

(i) Alba shall provide the following information as directed by Ortho to senior Finance management of Ortho on the following schedule: (a) audited financial statements a minimum of once per fiscal year; (b) Alba's management-approved financial statements quarterly, upon request of Ortho; and (c) details of debt structure, maturity schedule and renewal options upon request.

(ii) Once every twelve (12) months, Ortho shall have the right upon reasonable notice to, or to cause a third party to, audit the financial books and records of Alba specifically for purposes of evaluating the financial stability of the Alba. Alba shall provide reasonable cooperation and assistance to Ortho, at Ortho's cost and expense, in connection with such audit.

5.07 Business Continuity Plan/Back-up Supply. Alba agrees to establish and maintain a Business Continuity Plan ("**BCP**") that clearly defines a process to minimize or eliminate interruption in manufacturing operations in the event of a business interruption at Alba's Facility and/or at the facilities of Materials suppliers for Product. Alba understands that the BCP Program documents a consistent process for evaluating business continuity risk, self-assessing risk mitigation procedures, and prioritizing risks and mitigation activities at such facilities. The goal of the BCP is to quickly restore supply of Product following a disruption.

## ARTICLE 6
## IMPROVEMENTS AND CHANGES TO PRODUCT

6.01 Improvements; Control Process. (a) From time to time during the term of this Agreement, Alba or Ortho may submit to the other written proposals for the adoption, implementation or development of any improvement to a Product (each, an "Improvement"). In no event shall any such Improvement be implemented or made without the prior written approval of the Ortho. If the parties agree on any such Improvement and implementation date, they shall modify the Specifications to reflect the same and shall review the Price to be charged for such Product. In the event Alba is unable to supply Product that meets any changes to the Specifications proposed by Ortho and agreed by Alba, then Ortho shall be free to terminate this Agreement upon 180 days prior written notice, without payment of any fees, charges or other amounts, except for those amounts due and owing to Alba at such time for binding Purchase Orders.

(b) In the event an Improvement is necessary due to applicable laws, regulations or guidelines, Alba agrees that Improvements to the method or process of manufacture or production of Product shall be made at Alba's sole cost and expense. Alba further agrees that no improvements, changes or modifications to the method or process of manufacture or production of the Products or Raw Materials shall be made without prior written notification to and approval of Ortho and any such improvement, change or modification shall be made at Alba's sole cost and expense.

(c) In the event of any change to a Product, Alba shall establish an appropriate qualification protocol which will be reviewed and approved by Ortho. Ortho and Alba shall determine an appropriate inventory level for the pre-change Product in order to cover on-going requirements during the qualification process.

(d) Alba shall notify Ortho, in writing, at least ninety (90) days in advance and obtain approval from Ortho prior to making any changes to the Specifications, Raw Materials, the production process, production equipment or location(s) involved in the fulfillment of this Agreement.

6.02 Ortho Initiated. Ortho may at any time suggest Improvements, which may be implemented by the Alba as soon as reasonably possible; provided, that (a) none of such Improvements give rise to any claim of infringement of any third party patent or other proprietary right and (b) it is reasonably feasible for Alba to make such Improvements without requiring any capital investment on the part of Alba. If any such Improvement, as suggested by Ortho and implemented by Alba, causes a decrease in Alba's cost of producing a Product, all such cost savings shall be passed on to Ortho in the form of lower Price for such Product after deduction of any costs incurred by Alba in implementing such Improvement.

6.03 Product Life Cycle Management. In addition to the Improvements outlined in 6.01 and 6.02 above, Alba and Ortho agree to establish a Life Cycle Management Team to review and suggest additional Improvements to existing Products covered by this Agreement and, where agreed by both parties, to develop new products, which may be added to this Agreement, The parties shall manage and allocate costs associated with projects relating to any Improvements (or prospective new products) identified for review by the Life Cycle Management Team as outlined in Schedule M.

ARTICLE 7
TERM

7.01 Initial Term. The initial term of this Agreement (the "**Initial Term**") shall commence on the Effective Date and remain in effect for ten (10) years unless sooner terminated as expressly provided under the term of this Agreement.

7.02 Optional Extension. Ortho, at its sole option, may extend this Agreement for up to three additional one-year terms after the expiration of the Initial Term by giving Alba at least 180 days' prior written notice for each such additional term.

7.03 Purchase Orders -- Survival. The terms of this Agreement shall survive for binding Purchase Orders, blanket purchase orders and repair purchase orders issued prior to the expiration of this Agreement and such Purchase Orders shall continue to be subject to this Agreement until such Purchase Orders are completed, terminated or modified by mutual agreement of the parties in accordance with this Agreement.

ARTICLE 8
TERMINATION

8.01 Termination by Ortho Without Cause. Notwithstanding anything to the contrary in this Agreement, Ortho may terminate this Agreement without cause at any time during the Term upon twelve (12) months prior written notice.

8.02 Termination for Breach. This Agreement may be terminated, prior to the expiration of its Term, by either party by giving written notice of its intent to terminate and stating the grounds therefor if the other party shall materially breach or materially fail in the observance or performance of any representation, warranty, guarantee, covenant or obligation under this Agreement. The party receiving the notice shall have ninety (90) days from the date of receipt thereof to cure the breach or failure. In the event such breach or failure is cured, the notice shall be of no effect.

8.03 Insolvency. This Agreement may be terminated, prior to the expiration of its term, upon fifteen (15) days written notice by either party: (i) in the event that the other party hereto shall (1) apply for, take any step towards or consent to the appointment of, or the taking of possession by, a receiver, custodian, administrator, trustee or liquidator of itself or of all or a substantial part of its property, (2) make a general assignment for the benefit of its creditors, (3) commence a voluntary case under the United States Bankruptcy Code, as now or hereafter in effect (the "**Bankruptcy Code**") or analogous proceeding in any other jurisdiction, (4) file a petition seeking to take advantage of any law (the "**Bankruptcy Laws**") relating to bankruptcy, administration, insolvency, reorganization, winding-up, or composition or readjustment of debts in any jurisdiction, (5) fail to controvert in a timely and appropriate manner, or acquiesce in writing to, any petition filed against it in any involuntary case under the Bankruptcy Code or analogous proceeding in any other jurisdiction, or (6) take any corporate action for the purpose of effecting any of the foregoing; or (ii) if a proceeding or case shall be commenced against the other party hereto in any court of competent jurisdiction, seeking (1) its liquidation, administration, reorganization, dissolution or winding-up, or the composition or readjustment of its debts, (2) the appointment of a trustee, receiver, custodian, administrator, liquidator or the like of the party or of all or any substantial part of its assets, or (3) similar relief under any Bankruptcy Laws, or an order, judgment or decree approving any of the foregoing shall be entered and continue unstayed for a period of 60 days; or an order for relief against the other party hereto shall be entered in an involuntary case under the Bankruptcy Code or analogous laws in any other jurisdiction.

8.04 Effect of Termination. Notwithstanding the termination of this Agreement for any reason, each party hereto shall be entitled to recover any and all damages or losses that such party shall have sustained by reason of the breach by the other party hereto of any of the terms of this

Agreement. Termination of this Agreement for any reason shall not release either party hereto from any liability which at such time has already accrued or which thereafter accrues from a breach or default prior to such expiration or termination, nor affect in any way the survival of any other right, duty or obligation of either party hereto which is expressly stated elsewhere in this Agreement to survive such termination. In the case of a termination under Section 8.03 above, the non-defaulting party may pursue any remedy available in law or in equity with respect to such breach.

8.05 Transitional Support. If this Agreement expires or terminates, Alba shall provide Ortho with such exit assistance (e.g., knowledge transfer, bid assistance, cooperation) as reasonably requested by Ortho in writing (the "**Exit Assistance Services**"). Ortho shall reimburse Alba for its actual and reasonable out of pocket costs incurred in performing the Exit Assistance Services requested by Ortho. At least 90 days prior to the effective date of termination (excluding in the event of immediate termination) or expiration, Alba shall propose to Ortho a plan for the provision of the Exit Assistance Services describing how and when it will perform the Exit Assistance Services and the estimated charges for the performance of the Exit Assistance Services. The Parties will use commercially reasonable efforts to agree on a final plan for performance of the Exit Assistance Services as soon as possible.

If this Agreement expires or terminates, Ortho may elect to have Alba continue to supply Products under the terms of this Agreement for up to twenty-four (24) months after the effective date of expiration or termination ("**Run-Off Period**").

## ARTICLE 9
## DELIVERY; INVENTORY

9.01 Delivery. All shipments must be accompanied by (a) a packing slip which describes the articles, states the Purchase Order number and shows the shipment's destination and (b) all documents required by the Quality Agreement. Alba agrees to promptly forward the original bill of lading or other shipping receipt for each shipment in accordance with Ortho's instructions. Alba further agrees to promptly render, after delivery of goods or performance of services, correct and complete invoices to Ortho.

9.02 Pallet Policy. Alba agrees that it shall comply with Ortho's Policy for Wood Pallets, set forth in Schedule E. Ortho has the right to reject any Product or materials that fail to comply with this policy.

9.03 Shipment. Delivery shall be EX WORKS (Incoterms 2010). Alba will pack all Product ordered hereunder in accordance with the Specifications, and in a manner suitable for shipment and sufficient to enable Product to withstand the effects of shipping.

9.04 Inventory/ Shelf life. Product must adhere to Schedules A-1 and A-2 for shelf life remaining on the date it is delivered to Ortho at its facilities or such other location as shall be designated by Ortho as a point of delivery. Alba and Ortho agree to cooperate to improve the process for ordering Product with the mutual objectives of expediting the supply process to a just-in-time process and reducing inventory cost and/ or distribution cost. If requested by Ortho, Alba shall inform Ortho as to its raw material inventory levels.

9.05 Safety Stock. Alba shall use reasonable commercial efforts to maintain a three (3) month reserve of all critical raw materials ("Safety Stock"), based on each OrthoSera Product forecast at all times throughout the term of this Supply Agreement. Such Safety Stock shall be reviewed and modified periodically with Ortho input.

ARTICLE 10
INSPECTION AND AUDIT

Ortho shall have the right, upon reasonable notice to Alba and during regular business hours, to inspect and audit Alba's premises, including the Alba Facilities or facilities being used by any supplier of Alba for production and storage of Product (1) to assure compliance by Alba (and its suppliers) with applicable law and regulation, including current Good Manufacturing Practice regulations ("**cGMP**") as defined by the United States Food, Drug & Cosmetic Act, as amended (the "**Act**"), the US Drug Enforcement Administration regulations, the Occupational Safety and Health Administration regulations and the US Environmental Protection Agency regulations and applicable United States Food and Drug Administration ("**FDA**") regulations, (2) to assure compliance with the provisions of this Agreement and (3) to determine Alba's costs in connection with Product to the extent these costs are passed on to Ortho. Alba shall (within 15 days for Critical observations and 30 days for Major and Minor observations) remedy or cause the remedy of any deficiencies which may be noted in any such audit or, if any such deficiencies cannot reasonably be remedied within such period, present to Ortho a written plan to remedy such deficiencies as soon as possible. The failure by Alba to remedy or cause the remedy of any such deficiencies within such period or to present such a plan within such period and then use its best efforts to remedy or cause the remedy of such deficiencies in accordance with such written plan, as the case may be, shall be deemed a material breach of this Agreement. Ortho shall also have the right to conduct annual audit loss prevention site visits through its insurance company representatives with prior notice to Alba and an annual cycle count of any inventory Ortho may have on site with Alba. Time of such inspections shall be mutually agreed upon by both parties. Alba acknowledges that the provisions of this Article 10 granting Ortho certain audit rights shall in no way relieve Alba of any of its obligations under this Agreement, nor shall such provisions require Ortho to conduct any such audits.

ARTICLE 11
QUALITY/DEFECTIVE PRODUCT/REGULATORY INSPECTIONS/TESTING

11.01 Quality. Alba warrants that any Product sold to Ortho hereunder shall conform to the Specifications for such Product, comply with applicable law and regulations and the terms of this Agreement (including the Quality Agreement) and be free from defects in design, material and workmanship ("**Product Requirements**"). Any Product failing to meet the foregoing Product Requirements shall be considered "**Defective Product**". Delivery of any Product by Alba to Ortho shall constitute a certification by Alba that the Product conforms to the foregoing requirements. Manufacturing and testing shall be performed as per applicable cGMPs. Mutual quality roles and responsibilities shall be defined in the Quality Agreement and each party shall fulfill such responsibilities. Alba represents and warrants to Ortho that neither Alba nor any of its employees have been "debarred" by the FDA, nor has Alba received notice that debarment proceedings have been commenced against Alba or any of its employees. Alba will immediately notify Ortho in writing if any such proceedings have commenced or if Alba or any of its employees are debarred by the FDA. Ortho may terminate this Agreement immediately upon receipt of any such notice from Alba.

11.02 Disposition of Defective Product.

(a) Delivery of Products shall not be deemed in itself as constituting acceptance of the Products by Ortho. Ortho shall notify Alba of the existence and nature of any non-compliance or defect and Alba shall have a reasonable opportunity to inspect such Defective Product and provide Ortho with detailed written instructions to return or dispose of such Defective Product. At the request and expense of Alba, Ortho shall return the Defective Product, or a representative sample thereof to Alba for testing.

(b) Alba shall replace at its own cost and expense (including reimbursement of freight, Raw Materials and disposition costs) all Defective Product. Without limiting the generality of the foregoing, in such case Ortho reserves the right to (i) have Alba manufacture and supply Product on an expedited basis to replace the Defective Product; (ii) have Alba credit Ortho for the amount and value of Defective Product; or (iii) purchase Product or similar product from another manufacturer or supplier. If Alba fails to so inspect such Defective Product, Ortho may dispose of the Defective Product as it sees fit and Alba shall promptly (i) reimburse Ortho for all direct, out-of-pocket costs incurred by Ortho in connection with the Defective Product, including without limitation, shipping of the Product and disposition and (ii) replace the Defective Product at its own cost and expense or, at Ortho's option, issue a credit as provided herein. Ortho shall have no obligation to pay for any Product that is subject to such a claim of non-compliance or defect and Alba shall reimburse Ortho for all direct, out-of-pocket costs incurred by Ortho in connection with such Product, including, without limitation, shipping of Product and disposition costs. Ortho will control the disposition process. Alba shall be liable for any direct losses arising from damage or defect to any product into which such non-compliant or defective Product may be incorporated by Ortho, its Affiliates or any other third party manufacturer of Ortho. The foregoing shall be without prejudice to Ortho's other rights and remedies.

11.03 Independent Testing. If, after Alba's inspections of such Product, the parties disagree as to whether the Product meets the Product Requirements, either party may deliver the Product to an independent third-party laboratory, mutually and reasonably acceptable to both parties, for analytical testing to confirm the Product's conformance with the Product Requirements. All costs associated with such third-party testing shall be at Ortho's expense unless the tested Product is deemed by such third-party to be Defective Product, in which case all such costs, including reimbursement of freight and disposition costs, shall be promptly paid by Alba. No inspection or testing of, or payment for Product by Ortho's or any third-party agent of Ortho's shall constitute acceptance by Ortho thereof, nor shall any such inspection or testing be in lieu or substitution of any obligation of Alba for testing, inspection and quality control as provided in this Agreement (including in the Specifications and Quality Agreement) or under applicable local, state, or federal laws, rules, regulations, standards, codes or statutes.

11.04 Reports. Upon Ortho's written request, Alba shall promptly provide Ortho's written reports relating to any aspects of Product that are identified in the Specifications. Notwithstanding the immediately preceding sentence, Alba shall provide Ortho (without a written request) with those reports identified in the Quality Agreement, which Alba is obligated thereunder to provide to Ortho.

11.05 Customer Complaints. In the event that Alba or Ortho receives any customer complaint regarding the Products, or any component thereof, manufactured by Alba and distributed by Ortho, then that party shall inform the other as described in the Quality Agreement. The complaint or notice shall then be evaluated and investigated by the party receiving the complaint at their own cost. Either party may request the other party to conduct failure investigations, using the process defined in the Quality Agreement. Alba shall assist Ortho in follow-up correction of Product complaints within the timeframe required by Ortho's procedures. If corrective actions are required, the cost of or part of the corrective action shall be borne by Alba up to the extent such complaint is attributable to a breach by Alba of any of its warranties, guarantees, representations, obligations or covenants contained herein, and shall be borne by Ortho up to the extent such complaint is related to some cause or event attributable to Ortho.

11.06 Corrective Action. Alba shall notify Ortho in writing as soon as possible, but no later than within one (1) business day, of any situation of which it becomes aware that could lead to a recall, field alert, Product withdrawal or field correction of any Product provided under this Agreement. The final decision to recall or withdraw Product resides solely with Alba, subject to written approval from Ortho, after joint discussions and evaluation by Alba and Ortho on the classification of events prior to regulatory notification. In the event any governmental agency having jurisdiction shall request or order, any corrective action with respect to any Product including any

recall, corrective action or market action, and the cause or basis of such recall or action is attributable to a breach by Alba of any of its warranties, guarantees, representations, obligations or covenants contained herein, then Alba shall be liable, and shall reimburse Ortho for the reasonable costs of such action including the cost of any Product which is affected thereby whether or not such particular Product shall be established to be in breach of any warranty by Alba hereunder. In the event that such recall or corrective action results from any cause or event attributable to Ortho, including, without limitation, storage of Products by Ortho, Ortho shall be responsible for all costs and expenses of such recall or corrective action. Should such recall or corrective action result from the fault of both parties, the parties shall share such costs and expenses proportionately. The parties agree to reasonably cooperate with each other in the resolution of any such recall or correction action, regardless of fault, in accordance with the timeframe specified under Ortho's procedure for handling these matters. Alba shall provide all cooperation and assistance to Ortho in connection with any such recall or action, including but not limited to, providing (a) requested documentation to demonstrate corrective and preventative action(s) and documentation to update and/or close the recall required by the Regulatory authority, (b) information related to, but not limited to, manufacturing and quality information such as incoming inspection data, batch record / manufacturing data, and product dispositions and release data and (c) information related to, but not limited to, product(s) inventory levels and lot / batch # information, locations and amounts.

11.07 Regulatory Inspections. In the event the Facilities are the subject of an inspection by any Regulatory Authority or any other duly authorized agency of any national, state or local government directly relating to the manufacturing, packaging or warehousing of Product (including any Product complaint) , Alba shall notify Ortho as soon as possible but no later than within twenty-four (24) hours of learning of such inspection, and shall, if reasonably possible given the circumstances, afford Ortho the opportunity to be present at such inspection although Ortho shall have no obligation to attend. If any samples of Product are taken, Alba shall collect duplicate samples from the same lot and location. If documents related to Product are taken, Alba shall collect duplicate copies of such documents. These duplicate samples and copies of documents will be sent to Ortho as soon as possible but no later than within forty-eight (48) hours at Ortho's expense. Alba shall supply Ortho with copies of any correspondence or portions of correspondence to the extent relating to the Products. In the event Alba receives any regulatory letter or written comments from any Regulatory Authority in connection with manufacturing and packaging of Products hereunder thereof, it shall provide Ortho with a copy of each such communication as soon as possible but no later than within forty-eight (48) hours. To the extent Alba is required to submit any correspondence to a Regulatory Authority that relates to the manufacture, packaging or warehousing of the Product, Alba shall provide Ortho with a copy of such correspondence as far in advance of its submission to such Regulatory Authority as possible and Ortho shall have the opportunity to review and comment upon such correspondence. Any written observation from a Regulatory Authority shall be shared with Ortho within one (1) day of receipt of the observation by Alba.

## ARTICLE 12
## FAILURE TO SUPPLY

12.01 Force Majeure Events. If either party is prevented from performing any of its obligations hereunder due to any cause which is beyond the non-performing party's reasonable control, including fire, explosion, flood, or other acts of God; acts, regulations, or laws of any government; war or civil commotion; strike, lock-out or labor disturbances; or failure of public utilities or common carriers (a "**Force Majeure Event**"), such non-performing party shall not be liable for breach of this Agreement with respect to such non-performance to the extent any such non-performance is due to a Force Majeure Event. The non-performing party is required to provide immediate, and in no case later than within 24 hours, written notice to the other party of the Force Majeure Event. Such non-performance will be excused for three months or as long as such event shall be continuing (whichever occurs sooner). Such non-performing party shall exercise all reasonable efforts to eliminate the Force Majeure Event and to resume performance of its affected

obligations as soon as practicable. Alba recognizes the impact to society of Ortho's inability to serve the medical industry as a result of Alba's failure to supply Product. Therefore, Alba agrees to prioritize Ortho's Product as it allocates any inventory, recovery efforts and production capability. If Alba has a Force Majeure Event that remains unresolved after ninety (90) days, then Ortho may choose, but shall not be obligated, to terminate upon 30 days prior written notice the Agreement without payment of any penalty.

12.02 Failure to Supply. Notwithstanding the provisions of Section 12.01, in the event that any of the following occur:

(a) Alba notifies Ortho (pursuant to Section 12.01 or otherwise) that Alba will not be able to fulfill Ortho's Purchase Order;

(b) Ortho has sent Alba a notice of termination in accordance with Section 8.02 following Alba's failure to cure the breach;

(c) Alba does not supply the OrthoSera Product within one hundred and eighty (180) days or any Products other than the OrthoSera Products within ninety (90) days of the scheduled delivery date as set forth in any Purchase order (whether due to the occurrence of a Force Majeure Event, any event listed in Section 8.03 above, or following the commencement of a case by or against Alba under Section 365(n) of Title 11 of the U.S. Code ("**Title 11**") or otherwise)

(each of (a) through (c) are referred to as a "**Failure to Supply**"), then immediately following such Failure to Supply and through and until such time as Alba fully resumes its supply obligations pursuant to this Agreement,

(i) Ortho may, in addition to any other rights and remedies hereunder, use, sell make and have made Product and any Raw Materials pursuant to the license granted in Section 12.03;

(ii) Ortho may designate a third party manufacturer of the Products or manufacture such Product for itself (with no obligation or liability to Alba);

(iii) Alba shall provide Ortho and such other manufacturer with assistance, as reasonably requested, in connection with such manufacturer's or Ortho's efforts to supply Product to Ortho, including:

(I) Alba shall use commercially reasonable efforts to allow to (a) facilitate conversations between Ortho and the owner of the Facility (in which the Products are made at the time of the Failure to Supply) to grant Ortho access to the Facility and its software, plant, machinery and know how to assist with the manufacture of the Products and grant Ortho access to the process for the manufacture of the Products, and (b) facilitate conversations between Alba's employees and staff and Ortho and, to the extent permissible by applicable law, grant Ortho the opportunity to participate in efforts to re-establish and maintain supply of the Products and liaise with such employees and staff;

(II) Alba shall use its reasonable endeavors to ensure any contract counterparty, including suppliers of Raw Materials, to provide their services or any part of their services directly to Ortho;

(III) Alba shall make such filings with such regulators as are necessary and appropriate;

(IV) for sake of clarity, Ortho shall pay the Price (as adjusted) for any Product supplied by Alba, less all reasonable costs incurred by Ortho in connection with the activities set forth in this clauses;

(iv) Alba shall make available to Ortho or its designee access to all technical and proprietary materials, information, techniques and Intellectual Property Rights of Alba for Ortho to procure required Raw Materials or produce or arrange an alternative supplier of Raw Materials or Product. Notwithstanding anything to the contrary contained in this Agreement, in the event that Ortho shall make or have made the Product, pursuant to this Section 12.02, Ortho shall be permitted to disclose to any third party any Confidential Information as is reasonably necessary in connection with such activities (subject to such third party agreeing in writing to be bound by the terms of Article 15 hereof). In the event that Ortho shall purchase Product from another manufacturer or manufacture Product for itself pursuant to this Section 12.02 (other than as a result of a Force Majeure Event), Alba shall be liable for all reasonable costs incurred by Ortho in connection with the activities set forth in clauses (i) through (v) above, including without limitation, costs for technical transfer, qualification, validation and transfer of equipment and Raw Materials and costs of cover until the time when Alba can resume supply The foregoing shall be without prejudice to the Ortho's other rights and remedies, including, without limitation, the right to claim all direct damages and losses incurred (except for consequential damages). Notwithstanding the foregoing, if such inability, unwillingness or failure to supply Products which conform with the applicable Specifications within the delivery periods set forth herein occurs more than two (2) times in any calendar quarter (unless due to a Force Majeure Event), such inability, unwillingness or failure shall be deemed a material breach of this Agreement.

12.03 License. Alba hereby grants to Ortho a fully paid up exclusive worldwide license, with the right to grant sub-licenses to its Affiliates, to use, sell, make and have made products employing and utilizing the Intellectual Property Rights. Such license shall become effective immediately upon the occurrence and for the duration of a Failure to Supply for all Products, and remain in force until Alba is in a position to resume supply of the Products. Alba shall provide within thirty (30) days of the Effective Date to Ortho a description of Alba's process for the manufacture of the OrthoSera Products and the Fetal Screening Products (including any required formulations and raw materials used for the manufacture of the OrthoSera Products and the Fetal Screening Products) in sufficiently clear and detailed terms that it can be readily followed and carried out by a trained scientist or engineer to make the OrthoSera Product in the manner Alba considers most efficient. Furthermore, should Alba alter, modify or change its process for manufacturing the OrthoSera Product, Alba shall provide to Ortho details of such alteration, modification or change. "**Fetal Screening Products**" shall mean the fetal screening products described in Schedule A1 as such of this Agreement. "

12.04 Rights Upon Insolvency. All rights and licenses to Intellectual Property Rights granted under this Agreement by Alba to Ortho are, for all purposes of Title 11, licenses of rights to intellectual property as defined in Title 11. Alba agrees during the term of this Agreement to create and maintain current copies or, if not amenable to copying, detailed descriptions or other appropriate embodiments, of all such Intellectual Property Rights. If a case is commenced by or against Alba under Title 11, then, unless and until this Agreement is rejected as provided in Title 11, Alba (in any capacity, including debtor-in-possession) and its successors and assigns (including, without limitation, a Title 11 trustee) shall either perform all of the obligations provided in this Agreement to be performed by Alba or license to Ortho all such Intellectual Property Rights (including all embodiments thereof) held by Alba and such successors and assigns, as Ortho may elect in a written request, immediately upon such request. If a Title 11 case is commenced by or against Alba, this Agreement is rejected as provided in Title 11 and Ortho elects to retain its rights hereunder as provided in Title 11, then Alba (in any capacity, including debtor-in-possession) and its successors

and assigns (including, without limitation, a Title 11 trustee) shall provide to Ortho all such Intellectual Property Rights (including all embodiments thereof) held by Alba and such successors and assigns immediately upon Ortho's written request therefor. All rights, powers and remedies of Ortho, as a licensee hereunder, provided herein are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at law or in equity (including, without limitation, Title 11) in the event of the commencement of a Title 11 case by or against Alba. Ortho, in addition to the rights, powers and remedies expressly provided herein, shall be entitled to exercise all other such rights and powers and resort to all other such remedies as may now or hereafter exist at law or in equity (including Title 11) in such event. In this Section, all references to Title 11 include any analogous law in any other jurisdiction, and the remaining terminology should be interpreted to give like effect.

12.05 The parties acknowledge, notwithstanding Title 11 and that this Agreement is governed by the laws of the State of New York, that Alba is a company incorporated pursuant to the laws of Scotland, and accordingly, Alba shall only be able to perform its obligations under this Section 12 in so far as is permitted by the insolvency laws of Scotland or any analogous relevant jurisdiction

## ARTICLE 13
## INSURANCE

Alba agrees to procure and maintain in full force and effect during the term of this Agreement valid and collectible insurance policies in connection with its activities as contemplated hereby which policies shall be in compliance with the requirements set forth in Schedule C. Upon Ortho's request, Alba shall provide to Ortho a certificate of coverage or other written evidence reasonably satisfactory to Ortho of such insurance coverage.

## ARTICLE 14
## TRADE DRESS, LABELING; ARTWORK; PROPRIETARY RIGHTS; TRADEMARKS

14.01 Ortho Trade Dress. For Exclusive Products to be distributed or sold with Ortho Trade Dress (as indicated on Schedule B-1), the label and package insert copy for each Exclusive Product or Ortho-branded finished products using, made with or containing any other Product shall: (a) conform to Ortho's standard labeling requirements, (b) comply with all applicable U.S. and EU regulatory requirements, (c) be reviewed by Ortho and be subject to Ortho's approval and (d) contain all other information agreed to by the parties including any requirements set forth in that Exclusive Product's Specifications set forth on Schedule B-1 hereto.

14.02 Alba Trade Dress. For Products to be distributed or sold under Alba Trade Dress (as indicated on Schedules B-1 and B-2), the label and package insert copy for each Product shall: (a) conform to Alba standard labeling requirements and (b) comply with all applicable U.S. regulations, standards and requirements and that Product's Specifications as applicable.

14.03 Labeling. The process for creating and updating documentation and Labeling for the Exclusive Products, shall be as set forth in Schedule I attached hereto.

14.04 Intellectual Property. Alba acknowledges that Ortho is the exclusive owner of and has all rights to the trademarks, trade dress, copyrights, slogans, artwork, text, and all other intellectual property that appear on or are otherwise used in connection with the sale and use of Exclusive Products or Ortho-branded finished products, ("**Ortho Background IP**"). For clarity, in spite of its inclusion on Schedule A-1, Alba® Q-Check is a trademark Alba and is not Ortho Background IP. Ortho grants Alba a limited license to use the Ortho Background IP solely in its

performance of this Agreement for the benefit of Ortho. Alba grants to Ortho a worldwide, royalty free, non-exclusive license with the right to grant sublicenses, for any invention or development, whether patentable or not, or whether fully completed or not, made by Alba to improve Exclusive Product or the manufacture thereof, including any method or any use or any combination product relating hereto, created while this Agreement is in effect.

14.05 Alba Trademark. Ortho shall not be entitled to make use of A trademark(s), or a name in any way either in respect of this Agreement or any other agreement to which Ortho is a party, without written consent from Alba.

14.06 Ortho Trademark. A shall use Ortho's name, trade name, and trademarks only in connection with the manufacture of the Exclusive Products under this Agreement and only insofar as necessary to package and label. A shall not acquire any right, title or interest to or in Ortho's name, trade name, trademarks or Labeling under this Agreement.

ARTICLE 15
CONFIDENTIALITY

As used herein, "**Confidential Information**" shall include all confidential or proprietary information given to one party by the other party, or otherwise acquired by such party in its performance of this Agreement, relating to the other party or any of its Affiliates, including information regarding any of the products of such other party or any of its Affiliates, information regarding its advertising, distribution, marketing or strategic plans or information regarding its costs, productivity or technological advances. During the term of this Agreement, and for a period of 5 years thereafter, neither party shall use or disclose to third parties any Confidential Information of the other party. Notwithstanding the foregoing, the receiving party may disclose Confidential Information of the other party to the extent required by law or requested by a governmental authority; provided, that the receiving party shall, to the extent not prohibited, promptly notify the disclosing party of such requirement or request prior to any disclosure. Upon the disclosing party's request at any time, the receiving party shall return to the disclosing party or destroy all material and documents containing or derived from Confidential Information of the other party. Confidential Information shall not include information that (i) was already known to the receiving party at the time of its receipt thereof or is independently developed by receiving party without use of any Confidential Information, (ii) is received from a third party who does not have, to the receiving party's knowledge, any duty of confidentiality to the other party hereunder with respect to such information, or (iii) is or becomes part of the public domain through no breach of this agreement by the receiving party.

ARTICLE 16
PUBLIC ANNOUNCEMENTS

16.01 Publicity. Neither party shall, except as provided below, make, issue or release any public announcement, press release, statement or acknowledgment of the existence of, or reveal publicly the terms, conditions and status of, the transactions contemplated herein, without the prior written consent of the other party as to the content and time of release of and the media in which such statement or announcement is to be made; provided, however, that in the case of announcements, statements, acknowledgments or revelations which either party is required by law to make, issue or release, the making, issuing or releasing of any such announcement, statement, acknowledgment or revelation by the party so required to do so by law shall not constitute a breach of this Agreement if such party shall have given, to the extent reasonably possible, not less than two (2) calendar days prior notice to the other party, and shall have attempted, to the extent reasonably possible, to clear such announcement, statement, acknowledgment or revelation with the other party. Alba shall not use the name of Ortho or any of its Affiliates for advertising or promotional purposes without the prior written consent of Ortho. In furtherance of the foregoing, Alba shall not originate any publicity or

other announcement, written or oral, whether to the public, the press, the trade, Ortho's or Alba's customers or otherwise, relating to this Agreement or the existence of an arrangement between the parties, without the prior written approval of Ortho.

## ARTICLE 17
## REPRESENTATIONS AND WARRANTIES

17.01 Products. Alba represents and warrants to Ortho that all Product supplied in connection with this Agreement shall (a) conform to the Specifications for such Product, (b) comply with applicable law and regulations, (c) comply with the terms of this Agreement (including the Quality Agreement), and (d) be of merchantable quality, fit for the purpose intended by this Agreement and free from defects in design, material and workmanship. Alba further represents and warrants that it shall comply with, all current and future statutes, laws, ordinances and regulations, including, without limitation, those enforced by the United States Food and Drug Administration (including compliance with good manufacturing practices), the states and International Standards Organization Rules 9,000 et seq. Alba represents and warrants that it will hold all licenses, permits and similar governmental authorizations necessary or required for Alba to conduct its operations and business and manufacture Product throughout the Term. Alba represents and warrants that any Products that have been stored until delivery or Raw Materials stored until use, shall have been stored under appropriate and secure conditions and in accordance with cGMPs. Alba represents and warrants that Product supplied in connection with this Agreement will not contain any Raw Materials that have not been used or stored in accordance with the Specifications, any other quality assurance standards instructed by Ortho or any supplier of Raw Materials and all applicable governmental standards. Alba represents and warrants that it will maintain all equipment used in connection with the manufacturing, packaging and supplying of Product hereunder in good working condition and in accordance with all applicable laws, rules and regulations.

17.02 Execution and Performance of Agreement. Alba and Ortho each represents to the other that it has full right, power and authority to enter into and perform its obligations under this Agreement. Alba and Ortho each further represents and warrants to the other that the performance of its obligations under this Agreement will not result in a violation or breach of, and will not conflict with or constitute a default under any agreement, contract, commitment or obligation to which such party or any of its Affiliates is a party or by which it is bound.

## ARTICLE 18
## COMPLIANCE

18.01 Compliance with Laws. Alba agrees to comply with the applicable provisions of any Federal or state law and all executive orders, rules and regulations issued thereunder, including Executive Order 11246, as amended, Chapter 60 of Title 41 of the Code of Federal Regulations, as amended, prohibiting discrimination against any employee or applicant for employment because of race, color, religion, sex or national origin; Section 60-741.1 of Chapter 60 of 41 Code of Federal Regulations, as amended, prohibiting discrimination against any qualified employee or applicant for employment with disabilities; Section 60.250.1 of Chapter 60 of 41 Code of Federal Regulations, as amended, providing for the employment of qualified special disabled veterans, veterans of the Vietnam era, recently separated veterans and other protected veterans; Chapter 1 of Title 48 of the Code of Federal Regulations, as Amended, Federal Acquisition Regulations; Sections 206, 207 and 212 of the Fair Labor Standards Act, as amended, and the regulations and orders of the United States Department of Labor promulgated in connection therewith; Section 1502 of the Dodd Frank Wall Street Reform and Consumer Protection Act of 2010, Rule 13(p)-1 regarding Conflict Minerals, as further outlined in Schedule H and any provisions, representations or agreements required thereby to be included in this Agreement are hereby incorporated by reference. If any Product is ordered by Ortho under U.S. government contracts, Alba agrees that all applicable federal statutes and

regulations applying to Ortho as a contractor are accepted and binding upon Alba insofar as Alba may be deemed a subcontractor.

18.02 Compliance with Policy on Ortho's Code of Conduct. Alba and its officers have read and understand Ortho's Code of Conduct attached hereto as Schedule D, and as such may be amended (the "**Policy**"). Alba shall permit representatives of Ortho to enter Alba's premises at any reasonable time, and Alba shall use best endeavors to ensure that representatives of Ortho shall be permitted to enter the premises of any subcontractor involved in the manufacture or supply of any Products (or component thereof) at any reasonable time, in order to inspect relevant employment, health and safety records and to observe the manufacturing process. Alba (and its subcontractors) shall maintain the records necessary to demonstrate compliance with the Policy and shall provide to Ortho a written certification of such compliance annually during the term of this Agreement. If Alba shall fail to comply with this Section, then Ortho shall have the right to terminate this Agreement forthwith, effective upon 10 days' prior written notice, and without payment of any penalty or termination fee.

18.03 Environmental, Health and Safety Standards. With respect to all environmental, safety and industrial hygiene matters related to Alba's activities under this Agreement, Alba shall (a) certify compliance with all applicable laws and regulations issued by national, state and local authorities, (b) inform Ortho promptly of any significant adverse event (e.g., fires, explosions, accidental discharges), (c) inform Ortho promptly of any allegations or findings of violations of applicable laws or regulations, (d) any material community complaint against Alba, and (d) allow Ortho to inspect Alba's facilities if notified of adverse event, such inspections to be at reasonable times and upon reasonable notice. If Alba shall fail to comply with any of the conditions in this section, then Ortho shall have the right to terminate this Agreement forthwith, effective upon 10 days' prior written notice, and without payment of any penalty or termination fee.

18.04 Anti-Corruption Compliance Provision**.** Neither party shall perform any actions that are prohibited by local and other anti-corruption laws (including the U.S. Foreign Corrupt Practices Act, collectively "**Anti-Corruption Laws**") that may be applicable to one or both parties to the Agreement. Without limiting the foregoing, neither party shall make any payments, or offer or transfer anything of value, to any government official or government employee, to any political party official or candidate for political office or to any other third party related to the transaction in a manner that would violate Anti-Corruption Laws.

18.05 Record Retention. Alba (and its subcontractors and agents) shall use all paper or electronic records, files, documents, work papers and other information in any form, whether marked "confidential" or not (the "**Files and Work Papers**") relating to the supply of Product, only as permitted by Ortho's Records Management Policy (the "**Records Policy**") set forth on Schedule F. Alba (and its subcontractors and agents) shall maintain the records necessary to demonstrate compliance with the Records Policy and shall provide to Ortho a written certification of such compliance annually during the term of the Supply Agreement. Alba's failure to comply with this Section 18.05 shall be considered a material breach of the Supply Agreement and Ortho shall have the right to terminate the Supply Agreement forthwith, effective upon 10 days' prior written notice, and without payment of any penalty or termination fee.

18.06 Compliance with REACH Regulation. Alba Bioscience agrees to comply with the European Community Regulation EC 1907/2006 for Registration, Evaluation, Authorization and Restriction of Chemical Substances (REACH Regulation), as applicable to the Products

18.07 Compliance with Product Identification. Alba Bioscience agrees to comply with: (i) unique identification / pedigree bar coding regulations when mandated by US and other local law, (ii) evolving bar code regulations such as the FDA requirement for Unique Device Identifier (UDI) and (iii) GS1 standard.

ARTICLE 19
INDEMNIFICATION AND LIMITATION OF LIABILITY

19.01 Indemnification by Alba. Alba shall indemnify and hold harmless Ortho (and its Affiliates) from and against any and all third party damages, liabilities, claims, costs, charges, judgments and expenses (including reasonable attorney's fees) (collectively "**Damages**") that may be sustained, suffered or incurred by Ortho (or its Affiliates), arising from or by reason of (a) the breach by Alba of any warranty, representation, covenant or agreement made by Alba in this Agreement; (b) actual or alleged injury to property or person or death occurring to any of Alba's employees, subcontractors, invitees, agents or individuals on Alba's premises; (c) any Product that does not conform to the Specifications or any of the requirements of this Agreement or is otherwise defective; (d) Alba's manufacture, packaging or supply of Products under this Agreement, including any actual or alleged infringement or violation of any patent, trade secret or other proprietary rights of any third party; or (e) Alba's negligence or willful misconduct; provided, that the foregoing shall not apply to the extent arising from Ortho's negligence or willful misconduct.

19.02 Indemnification by Ortho. Ortho shall indemnify and hold harmless Alba from and against any and all third party Damages, that may be sustained, suffered or incurred by Alba arising from or by reason of (a) the breach by Ortho of any warranty, representation, covenant or agreement made by Ortho in this Agreement; or (b) Ortho's negligence of willful misconduct; provided, that the foregoing shall not apply to the extent arising from Alba's negligence or willful misconduct or from Product not meeting Specifications or any of the requirements set forth in this Agreement or otherwise being defective.

19.03 Claims. The party entitled to indemnification under this Article 19 (the "**Indemnified Party**") shall give prompt written notice of any third party claim or suit and shall permit the other party (the "**Indemnifying Party**") to undertake the defense at the Indemnifying Party's expense. The Indemnified Party shall cooperate in such defense, to the extent reasonably requested by the Indemnifying Party, at the Indemnifying Party's expense. The Indemnified Party shall have the right to participate in such defense at its own expense. In any claim made or suit brought for which the Indemnified Party seeks indemnification under this Article 19, the Indemnified Party shall not settle or offer to settle such claim or suit, or admit liability or damages, without the prior written consent of the Indemnifying Party. The Indemnifying Party shall not settle any claim or suit in such a manner as would create an obligation on the part of the Indemnified Party to any third party without the prior written consent of the Indemnified Party.

19.04 Limitation of Liability. Nothing in this Agreement shall operate to exclude either party's liability to the other for:

(a) death or personal injury caused by its negligence; or

(b) any fraudulent misrepresentations

Subject to the foregoing:

(i) neither Party shall have any liability to the other party, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, for any indirect and consequential loss arising under or in connection with this Agreement; and

(ii) during each contract year each party's maximum aggregate liability to the other party whether in contract, tort (including negligence), breach of statutory duty, or otherwise, arising under or in connection with this Agreement shall be not exceed one hundred percent (100%) of the aggregate revenues actually received by Alba under this Agreement in the twelve months prior to the time the claim was made.

ARTICLE 20
MISCELLANEOUS

20.01 Dispute Resolution. (a) This Agreement shall be governed and construed by the laws of the State of New York, excluding any choice of law rules that may direct the application of the laws of another jurisdiction.

(b) Mediation. Any controversy or claim arising out of or relating to this Agreement, including any such controversy or claim involving the parent company, subsidiaries, or affiliates under common control of any party (a "**Dispute**"), shall first be submitted to mediation according to the *Commercial Mediation Procedures* of the American Arbitration Association ("**AAA**") (see www.adr.org). Such mediation shall be attended on behalf of each party for at least one session by a senior business person with authority to resolve the Dispute. Any period of limitations that would otherwise expire between the initiation of a mediation and its conclusion shall be extended until 20 days after the conclusion of the mediation.

(c) Arbitration. (i) Any Dispute that cannot be resolved by mediation within 45 days of notice by one party to the other of the existence of a Dispute (unless the parties agree to extend that period) shall be resolved by arbitration in accordance with the *Commercial Arbitration Rules* of the AAA ("**AAA Rules**"; see www.adr.org) and the Federal Arbitration Act, 9 U.S.C. §1 et seq.. The arbitration shall be conducted in New Jersey, by one arbitrator appointed in accordance with the AAA Rules. (ii) The arbitrator shall follow the *ICDR Guidelines for Arbitrators Concerning Exchanges of Information* in managing and ruling on requests for discovery. The arbitrator, by accepting appointment, undertakes to exert her or his best efforts to conduct the process so as to issue an award within eight months of her or his appointment, but failure to meet that timetable shall not affect the validity of the award. (iii) The arbitrator shall decide the Dispute in accordance with the substantive law of New York. The arbitrator may not award punitive or exemplary damages, or attorneys fees or costs, and each party hereby irrevocably waives any right to seek such damages, nor may the arbitrator apply any multiplier to any award of actual damages, except as may be required by statute. The award of the arbitrator may be entered in any court of competent jurisdiction

20.02. Relationship of the Parties. The relationship of Ortho and Alba established by this Agreement is that of independent contractors, and nothing contained herein shall be construed to (i) give either party any right or authority to create or assume any obligation of any kind on behalf of the other or (ii) constitute the parties as partners, joint venturers, co-owners or otherwise as participants in a joint or common undertaking.

20.03 Entire Agreement. It is the mutual desire and intent of the parties to provide certainty as to their respective future rights and remedies against each other by defining the extent of their mutual undertakings as provided herein. The parties have, in this Agreement, incorporated all representations, warranties, covenants, commitments and understandings on which they have relied in entering into this Agreement, and, except as provided for herein, neither party makes any covenant or other commitment to the other concerning its future action. Accordingly, this Agreement (i) constitutes the entire agreement and understanding between the parties with respect to the subject matter hereof and there are no promises, representations, conditions, provisions or terms related thereto other than those set forth in this Agreement and (ii) supersedes all previous understandings, agreements and representations between the parties, written or oral. No modification, change or amendment to this Agreement shall be effective unless in writing signed by each of the parties hereto.

20.04 Headings. The Article and Section headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning and interpretation of this Agreement.

20.05 Notices. All notices and other communications hereunder shall be in writing. All notices hereunder of an Indemnity Claim, a Force Majeure Event, default or breach hereunder, or, if applicable, termination or renewal of the term hereof, or any other notice of any event or development material to this Agreement taken as a whole, shall be delivered personally, or sent by national overnight delivery service or postage pre-paid registered or certified U.S. mail, and shall be deemed given: when delivered, if by personal delivery or overnight delivery service; or if so sent by U.S. mail, three business days after deposit in the mail, and shall be addressed:

If to Alba: Alba Bioscience Limited
5 James Hamilton Way,
Biocampus,
Bush Loan, Penicuik,
Scotland EH26 0BF
UK

If to Ortho: Ortho-Clinical Diagnostics, Inc.
1001 US Route 202
Raritan, New Jersey 08869
Attn; Chad Dale, Head of Operations

With a copy to: Ortho-Clinical Diagnostics, Inc.
1001 US Route 202
Raritan, New Jersey 08869
General Counsel

or to such other place as either party may designate by written notice to the other in accordance with the terms hereof.

20.06 Failure to Exercise. The failure of either party to enforce at any time for any period any provision hereof shall not be construed to be a waiver of such provision or of the right of such party thereafter to enforce each such provision, nor shall any single or partial exercise of any right or remedy hereunder preclude any other or further exercise thereof or the exercise of any other right or remedy. Remedies provided herein are cumulative and not exclusive of any remedies provided at law.

20.07 Assignment. This Agreement may not be assigned by Ortho without the prior written consent of the Alba, except that Ortho may assign its rights and/or obligations hereunder to (i) any of its Affiliates, (ii) a successor to its business and (iii) with respect to any Product, to a third party that acquires greater than 50% of Ortho's rights to such Product (whether by sale, license, merger, Change of Control or otherwise). Alba acknowledges that Ortho has entered into this Agreement after consideration of the unique talent, experience and particular attributes of Alba to manufacture and supply Product. Therefore, this Agreement and all rights and obligations hereunder are personal to Alba and may not be assigned or transferred by Alba without the express written consent of Ortho, which consent may be withheld or given in Ortho's sole discretion. Any such assignment or attempted assignment or transfer in the absence of the prior written consent of Ortho shall be void and without effect at the option of the Ortho. Subject to the foregoing sentence, this Agreement shall bind and inure to the benefit of the parties hereto and their respective successors and assigns. Alba shall not subcontract any part of the manufacturing, packaging or supplying of Product, testing procedures or any of its other obligations hereunder to a third party.

20.08 Severability. In the event that any one or more of the provisions (or any part thereof) contained in this Agreement or in any other instrument referred to herein, shall, for any reason, be held to be invalid, illegal or unenforceable in any respect, then to the maximum extent permitted by law, such invalidity, illegality or unenforceability shall not affect any other provision of

this Agreement or any other such instrument. Any term or provision of this Agreement which is invalid, illegal or unenforceable in any jurisdiction shall, to the extent the economic benefits conferred by this Agreement to both parties remain substantially unimpaired, not affect the validity, legality or enforceability of any of the terms or provisions of this Agreement in any other jurisdiction.

20.09 Further Assurances. Upon reasonable request from Ortho therefor, Alba shall provide to OCD, promptly, any product samples, manufacturing information and other information as is necessary for Ortho to complete or obtain U.S. or foreign registration (including reimbursement arrangements) or approval in any territory where Ortho is allowed to sell product or use technology.

20.10 Counterparts. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

20.11 Expenses. Each party shall pay all of its own fees and expenses (including all legal, accounting and other advisory fees) incurred in connection with the negotiation and execution of this Agreement and the arrangements contemplated hereby.

20.12 Survival. Sections 8.04, 20.01 and 20.11 and Articles 14, 15, 16 and 19 shall survive the termination of this Agreement in accordance with the respective terms thereof.

*[signature page to follow]*

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized respective representatives as of the day and year first above written.

ORTHO-CLINICAL DIAGNOSTICS, INC.
By: __/s/ Chad Dale_____
Name: CHAD DALE
Title: EVP of Global Operations

ALBA BIOSCIENCE LIMITED

By: __/s/ Jeremy Stackawitz_____
Name: JEREMY STACKAWITZ
Title: President

*[signature page of Ortho-Alba Supply Agreement]*

**Exhibit 31.1**

**CERTIFICATION**

I, Franz Walt, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Quotient Limited;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period for which this report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: February 5, 2019

/s/ Franz Walt
Franz Walt
*Chief Executive Officer*

**Exhibit 31.2**

**CERTIFICATION**

I, Christopher Lindop, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Quotient Limited;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period for which this report is being prepared;

   (b) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

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

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

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

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

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

Date: February 5, 2019

/s/ Christopher Lindop
Christopher Lindop
*Chief Financial Officer*

**Exhibit 32.1**

**CERTIFICATION**

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Quotient Limited, a company incorporated under the laws of Jersey, Channel Islands (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the quarter ended December 31, 2018 (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, as amended, 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: February 5, 2019

/s/ Franz Walt
Franz Walt
*Chief Executive Officer*

This certification is being furnished and not filed, and shall not be incorporated into any document for any purpose, under the Securities Exchange Act of 1934 or the Securities Act of 1933.

**Exhibit 32.2**

**CERTIFICATION**

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), the undersigned officer of Quotient Limited, a company incorporated under the laws of Jersey, Channel Islands (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the quarter ended December 31, 2018 (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, as amended, 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: February 5, 2019

/s/ Christopher Lindop
Christopher Lindop
*Chief Financial Officer*

This certification is being furnished and not filed, and shall not be incorporated into any document for any purpose, under the Securities Exchange Act of 1934 or the Securities Act of 1933.