

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

FORM 20-F

- REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934
- or
- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2016
- or
- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from to
- or
- SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Date of event requiring this shell company report

Commission File Number 0-28564

QIAGEN N.V.
(Exact name of Registrant as specified in its charter)

n/a
(Translation of Registrant's name in English)

The Netherlands
(Jurisdiction of incorporation or organization)

Hulsterweg 82
5912 PL Venlo
The Netherlands
011-31-77-355-6600
(Address of principal executive offices)

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QIAGEN N.V., Hulsterweg 82, 5912 PL Venlo, The Netherlands
(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of class:	Name of each exchange on which registered:
Common Shares, par value EUR 0.01 per share	NASDAQ Stock Market LLC

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

The number of outstanding Common Shares as of December 31, 2016 was 234,560,586.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes No

Note—Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

- U.S. GAAP
- International Financial Reporting Standards as issued by the International Accounting Standards Board
- Other

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow:

- Item 17
- Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

Unless the context otherwise requires, references herein to “we,” “us,” “our,” the “Company” or to “QIAGEN” are to QIAGEN N.V. and its consolidated subsidiaries.

EXCHANGE RATES

QIAGEN publishes its financial statements in U.S. dollars. In this Annual Report on Form 20-F, references to “dollars” or “\$” are to U.S. dollars, and references to “EUR” or the “euro” are to the European Monetary Union euro. Except as otherwise stated herein, all monetary amounts in this Annual Report on Form 20-F have been presented in U.S. dollars.

The exchange rate used for the euro was obtained from the European Central Bank and is based on a regular daily concentration procedure between central banks across Europe and worldwide, which normally takes place at 2:15 P.M. Central European Time. This rate at March 1, 2017, was \$1.0533 per €1.

For information regarding the effects of currency fluctuations on our results, see Item 5 “Operating and Financial Review and Prospects.”

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PART I

Item 1. Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

QIAGEN N.V. is registered under its commercial and legal name with the trade register (*kamer van koophandel*) of the Dutch region Limburg Noord under file number 12036979. QIAGEN N.V. is incorporated under Dutch law as a public limited liability company (*naamloze vennootschap*) and is organized as a holding company.

The selected consolidated financial data below should be read in conjunction with “Operating and Financial Review and Prospects” and the Consolidated Financial Statements, including the notes and other financial information included in this Annual Report on Form 20-F. The selected financial data below is derived from the consolidated statements of income for the years ended December 31, 2016, 2015 and 2014 and the consolidated balance sheets at December 31, 2016 and 2015 of QIAGEN that have been audited by an independent registered public accounting firm, and are included in this Annual Report. The selected data from the consolidated statements of income presented for the years ended December 31, 2013 and 2012, and the consolidated balance sheets as of December 31, 2014, 2013 and 2012, is derived from audited consolidated financial statements not included in this Annual Report. Certain prior year amounts have been revised to reflect a change in attribution method of share-based compensation. See further discussion in the *Revision of Previously Issued Financial Statements for Change in Attribution Method* section of Note 20 - Share-Based Compensation. Additionally, for the year ended December 31, 2015, certain balance sheet amounts have been reclassified upon adoption of ASU 2015-03 as further discussed within Note 2 - Effects of New Accounting Pronouncements.

Selected Financial Data

The information below should be read in conjunction with the Consolidated Financial Statements (and accompanying notes) and "Operating and Financial Review and Prospects."

	Years ended December 31,				
	2016	2015	2014	2013	2012
Consolidated Statement of Income Data: (amounts in thousands, except per share data)					
Net sales	\$ 1,337,991	\$ 1,280,986	\$ 1,344,777	\$ 1,301,984	\$ 1,254,456
Cost of sales	493,338	454,328	479,570	487,321	430,807
Gross profit	844,653	826,658	865,207	814,663	823,649
Operating expenses:					
Research and development	176,135	146,830	163,666	147,157	124,294
Sales and marketing	401,352	359,598	376,141	373,719	344,370
General and administrative, integration and other	129,248	102,066	126,637	200,815	153,058
Acquisition-related intangible amortization	39,091	38,666	37,070	35,495	36,117
Total operating expenses	745,826	647,160	703,514	757,186	657,839
Income from operations	98,827	179,498	161,693	57,477	165,810
Other expense	(41,919)	(43,195)	(42,304)	(25,992)	(24,661)
Income before income taxes	56,908	136,303	119,389	31,485	141,149
Income taxes	(23,395)	6,401	2,456	(33,164)	14,476
Net income	\$ 80,303	\$ 129,902	\$ 116,933	\$ 64,649	\$ 126,673
Net (loss) income attributable to noncontrolling interest	(101)	(246)	568	25	31
Net income attributable to QIAGEN N.V.	\$ 80,404	\$ 130,148	\$ 116,365	\$ 64,624	\$ 126,642
Basic net income per common share attributable to the owners of QIAGEN N.V. ⁽¹⁾	\$ 0.34	\$ 0.56	\$ 0.50	\$ 0.28	\$ 0.54
Diluted net income per common share attributable to the owners of QIAGEN N.V. ⁽¹⁾	\$ 0.34	\$ 0.55	\$ 0.48	\$ 0.27	\$ 0.52
Weighted-average common shares outstanding					
Basic	234,800	233,483	232,644	234,000	235,582
Diluted	238,993	238,647	242,806	243,400	242,020

(1) See Note 18 of the "Notes to Consolidated Financial Statements" for the computation of the weighted average number of Common Shares.

	As of December 31,				
	2016	2015	2014	2013	2012
Consolidated Balance Sheet Data: (amounts in thousands)					
Cash and cash equivalents	\$ 439,180	\$ 290,011	\$ 392,667	\$ 330,303	\$ 394,037
Working capital ⁽¹⁾	\$ 729,140	\$ 693,043	\$ 717,124	\$ 583,851	\$ 725,752
Total assets	\$ 4,308,194	\$ 4,179,117	\$ 4,454,372	\$ 4,088,392	\$ 4,087,631
Total long-term liabilities, including current portion	\$ 1,393,668	\$ 1,343,616	\$ 1,490,114	\$ 1,024,389	\$ 1,094,934
Total equity	\$ 2,607,096	\$ 2,568,070	\$ 2,664,876	\$ 2,731,891	\$ 2,730,979
Common shares, par value	\$ 2,812	\$ 2,812	\$ 2,812	\$ 2,812	\$ 2,769
Common shares issued	239,707	239,707	239,707	239,707	236,487
Common shares outstanding	234,561	233,006	232,023	233,890	234,544

(1) Working capital is current assets less current liabilities.

Risk Factors

Risk Management:

Our risk management approach embodies the key elements of a sound risk management system including (1) active Supervisory Board and senior management involvement; (2) adequate policies and procedures; (3) adequate risk management, monitoring and information systems; and (4) comprehensive internal controls.

QIAGEN is managed by a Managing Board and an independent Supervisory Board appointed by the General Meeting of Shareholders. One of the Managing Board's responsibilities is the oversight of the risk management system. The Managing Board has developed and implemented strategies, controls and mitigation measures to identify current and developing risks as part of the risk management system. Risk management policies and procedures are embodied in our corporate governance, code of ethics and financial reporting controls and procedures. A variety of functional experts evaluate these business risks, attempting to mitigate and manage these risks on an ongoing basis.

Identified risks are subdivided into three types:

- A base business risk is specific to us or our industry and that threatens our existing business;
- A business growth risk is specific to us or our industry that threatens our future business growth; and
- An underlying business risk is not specific to us or our industry, but applies to a larger number of public companies.

All identified risks are evaluated based on their likelihood of occurring and their potential impact (estimated in monetary terms) in disrupting our progress in achieving our business objectives. The overall risk management goal is to identify risks that could significantly threaten our success and to allow management on a timely basis the opportunity to successfully implement mitigation actions. The results of the risk assessment, and any updates, are reported to the Audit Committee of the Supervisory Board on a regular basis. A detailed risk reporting update is provided each quarter to the Audit Committee for specific risks that have been newly identified or have changed since the previous assessment. A detailed review of all underlying business risks is completed every year. At least once on an annual basis, the Supervisory Board discusses the corporate strategy and business risks as well as the results of an assessment by the Managing Board and the Audit Committee of the structure and operations of the internal risk management and control systems, including any significant changes.

Our corporate governance structure is based on a strong framework that outlines the responsibilities of our Managing and Supervisory Boards (discussed in more detail in Item 10 of this Annual Report) and the function of the Audit Committee of the Supervisory Board (discussed in more detail in Item 6 of this Annual Report). We maintain adequate internal controls over financial reporting to ensure the integrity of financial reporting, which is described further in Item 15 of this Annual Report. Additionally, we have a Compliance Committee that consists of senior executives from various functional areas who are responsible for ensuring compliance with legal and regulatory requirements, as well as overseeing the communication of corporate policies, including our Code of Ethics as described further in Item 16B of this Annual Report.

Risk Types	
Base Business Risk	<ul style="list-style-type: none"> • Identification and monitoring of competitive business threats • Monitoring complexity of product portfolio • Monitoring dependence on key customers for single product groups • Reviewing dependence on individual production sites or suppliers • Evaluating purchasing initiatives, price controls and changes to reimbursements • Monitoring production risks, including contamination prevention, high-quality product assurance • Ensuring ability to defend against intellectual property infringements and maintain competitive advantage after expiration
Business Growth Risk	<ul style="list-style-type: none"> • Managing development and success of key R&D projects • Managing successful integration of acquisitions to achieve anticipated benefits
Underlying Business Risk	<ul style="list-style-type: none"> • Evaluating financial risks, including economic risks and currency rate fluctuations • Monitoring financial reporting risks, including multi-jurisdiction tax compliance • Reviewing possible asset impairment events • Assessing compliance and legal risks, including safety in operations and environmental hazard risks, compliance with various regulatory bodies and pending product approvals • Monitoring risks of FCPA (Foreign Corrupt Practices Act) or antitrust concerns arising from a network of subsidiaries and distributors in foreign countries

The risks described below are listed in the order of our current view of their expected significance. Describing the risk factors in order of significance does not imply that a lower listed risk factor may not have a material adverse impact on our results of operations, liquidity or capital resources.

An inability to manage our growth, manage the expansion of our operations, or successfully integrate acquired businesses could adversely affect our business.

Our business has grown, with total net sales increasing to \$1.34 billion in 2016 from \$1.25 billion in 2012. We have made a series of acquisitions in recent years, including the acquisitions of Exiqon A/S in 2016, MO BIO Laboratories in 2015, Enzymatics and BIOBASE in 2014, Ingenuity and CLC bio in 2013, and Intelligent BioSystems and AmniSure in 2012. We intend to identify and acquire other businesses in the future that support our strategy to build on our global leadership position in Sample to Insight solutions. The successful integration of acquired businesses requires a significant effort and expense across all operational areas.

We have also made significant investments to expand our business operations. We completed an expansion project in Germany in early 2012 and another at our facility in Germantown, Maryland, for research, production and administrative space in 2013. We completed two smaller-scale building projects in 2015. These expansion projects have increased our fixed costs, resulting in higher operational costs in the short term that will negatively impact our gross profit and operating income until we more fully utilize the additional capacity of these planned facilities. In 2012, we added a subsidiary in Poland as part of the creation of a new global shared services center to gain economies of scale in various administrative functions, and since that time have expanded the shared service center to include more than 150 employees. The expansion of our business and the addition of new personnel may place a strain on our management and operational systems. As we continue to upgrade our operating and financial systems and expand the geographic presence of our operations, we intend to continue to assess the need for reallocation of existing resources or the hiring of new employees as well as increased responsibilities for both existing and new management personnel.

Our future operating results will depend on the ability of our management to continue to implement and improve our research, product development, manufacturing, sales and marketing and customer support programs, enhance our operational and financial control systems, expand, train and manage our employee base, integrate acquired businesses, and effectively address new issues related to our growth as they arise. There can be no assurance that we will be able to manage our recent or any future expansion or acquisitions successfully, and any inability to do so could have a material adverse effect on our results of operations.

Our acquisitions expose us to new risks, and we may not achieve the anticipated benefits of acquisitions of technologies and businesses.

During the past several years, we have acquired and integrated a number of companies through which we have gained access to new technologies, products and businesses that complement our internally developed product lines. In the future, we expect to

acquire additional technologies, products or businesses to expand our operations. Acquisitions expose us to new operating and other risks, including risks associated with the:

- assimilation of new products, technologies, operations, sites and personnel;
- integration and retention of fundamental personnel and technical expertise;
- application for and achievement of regulatory approvals or other clearances;
- diversion of resources from our existing products, business and technologies;
- generation of sales to offset associated acquisition costs;
- implementation and maintenance of uniform standards and effective controls and procedures;
- maintenance of relationships with employees and customers and integration of new management personnel;
- issuance of dilutive equity securities;
- incurrence or assumption of debt and contingent liabilities;
- amortization or impairment of acquired intangible assets or potential businesses; and
- exposure to liabilities of and claims against acquired entities.

Our failure to address the above risks successfully in the future may prevent us from achieving the anticipated benefits from any acquisition in a reasonable time frame, or at all.

Our continued growth is dependent on the development and success of new products.

Rapid technological change and frequent new product introductions are typical in the markets we serve. Our success will depend in part on continuous, timely development and introduction of new products that address evolving market requirements. We believe successful new product introductions provide a significant competitive advantage because customers make an investment of time in selecting and learning to use a new product and are reluctant to switch thereafter. To the extent that we fail to introduce new and innovative products, or such products suffer significant delays in development or are not accepted in the market, we may lose market share to our competitors, which will be difficult or impossible to regain. An inability to successfully develop and introduce new products, for technological or other reasons, could reduce our growth rate or otherwise have an adverse effect on our business. In the past, we have experienced delays in the development and introduction of products, including regulatory approvals, and we may experience delays in the future.

As a result, we cannot assure you that we will keep pace with the rapid rate of change in our markets or that our new products will adequately meet the requirements of the marketplace, achieve market acceptance or regulatory approval or compete successfully with competitive technologies. Some of the factors affecting market acceptance of new products include:

- availability, quality and price relative to competitive products;
- the timing of introduction of the new product relative to competitive products;
- opinions of the new product's utility;
- citation of the new product in published research;
- regulatory trends and approvals; and
- general trends in life sciences research, applied markets and molecular diagnostics.

In the development of new products we may make significant investments in intellectual property and software. These investments increase our fixed costs, resulting in higher operational costs in the short term that will negatively impact our gross profit and operating income until products reach a minimum level of market acceptance. The expenses or losses associated with unsuccessful product development activities or lack of market acceptance of our new products could materially adversely affect our business, financial condition and results of operations.

Important new product programs underway include our modular medium-throughput QIASymphony automation platform, our new GeneReader NGS System for next-generation sequencing (NGS), sample and assay technologies designed either for QIAGEN instruments or for "universal" use on other platforms, and bioinformatics solutions to analyze and interpret genomic data.

The speed and level of adoption of our QIASymphony and GeneReader NGS platforms will affect sales not only of instrumentation but also of consumables, sample and assay kits, designed to run on the systems. The rollouts of QIASymphony and GeneReader NGS System are intended to drive the dissemination and increasing sales of consumables for these systems. We are developing or co-developing new kits for each of these platforms and seeking regulatory approvals for a number of these new products. In turn, the availability and regulatory approval of more tests to run on QIASymphony or GeneReader NGS System, especially molecular assays for specific diseases or companion diagnostics paired with new drugs, will influence the value of the instruments to prospective buyers. Slower adoption of QIASymphony, including the complete QIASymphony RGQ system, or the GeneReader NGS System could significantly affect sales of products designed to run on these platforms.

Our strategic initiative in NGS, including rollout of the GeneReader NGS System and related consumables, aims to drive the adoption of this technology in clinical research and diagnostics. This involves development and commercialization of universal pre-analytic and bioinformatics products for NGS, as well as commercialization of our proprietary GeneReader NGS workflow and related consumables. The market for next-generation sequencing instruments is very competitive, and the speed and level of adoption of our universal solutions and the GeneReader workflow will affect sales of our Sample to Insight solutions.

Global economic conditions could adversely affect our business, results of operations and financial condition.

Our results of operations could be materially affected by adverse general conditions in the global economy and financial markets. In times of economic hardship or high unemployment, patients may decide to forgo or delay routine tests, in particular our HPV test used to screen women for risk of cervical cancer. Changes in the availability or reimbursement of our diagnostic testing products by insurance providers and healthcare maintenance organizations could also have a significant adverse impact on our results of operations.

Access to financing in the global financial markets has also been adversely affected for many businesses during the recent challenging economic times and public debt crisis. The uncertainty surrounding the resolution of the economic and sovereign debt crisis in Europe continues to have a negative impact on financial markets and economic conditions more generally. Our customers may face internal financing pressures that adversely impact spending decisions, the ability to purchase our products or that lead to a delay in collection of receivables and thus negatively impact our cash flow. A severe or prolonged economic downturn could result in a variety of risks to our business that would adversely impact our results of operations, including the reduction or delay in planned improvements to healthcare systems in various countries, the reduction of funding for life sciences research, and intensified efforts by governments and healthcare payors regarding cost-containment efforts.

Our results of operations could also be negatively impacted by any governmental actions or inaction resulting in automatic government spending cuts (sequestration) that may take effect (as in the U.S. in 2013). These conditions may add uncertainty to the timing and budget for investment decisions by our customers, particularly, researchers, universities, government laboratories and private foundations whose funding is dependent upon grants from government agencies, such as the U.S. National Institutes of Health (NIH) and similar bodies.

As is the case for many businesses, we face the following risks in regard to financial markets:

- severely limited access to financing over an extended period of time, which may affect our ability to fund our growth strategy and could result in delays to capital expenditures, acquisitions or research and development projects;
- failures of currently solvent financial institutions, which may cause losses from our short-term cash investments or our hedging transactions due to a counterparty's inability to fulfill its payment obligations;
- inability to refinance existing debt at competitive rates, reasonable terms or sufficient amounts; and
- increased volatility or adverse movements in foreign currency exchange rates.

We may encounter delays in receipt, or limits in the amount, of reimbursement approvals and public health funding, which will impact our ability to grow revenues in the healthcare market or may negatively impact our profitability.

Third-party payors are often reluctant to reimburse healthcare providers for the use of medical tests that involve new technologies or provide novel diagnostic information. In addition, third-party payors are increasingly limiting reimbursement coverage for medical diagnostic products and, in many instances, are exerting pressure on diagnostic product suppliers to reduce their prices. Since each third-party payor often makes reimbursement decisions on an individual patient basis, obtaining such approvals is a time-consuming and costly process that requires us to provide scientific and clinical data supporting the clinical benefits of each of our products. As a result, there can be no assurance that reimbursement approvals will be obtained. This process can delay the broad market introduction of new products, and could have a negative effect on our results of operations. As a result, third-party reimbursement may not be consistent or financially adequate to cover the cost of our products. This could limit our ability to sell our products or cause us to reduce prices, which would adversely affect our results of operations.

Further, the ability of many of our customers to successfully market their products depends in part on the extent to which reimbursement for the costs of these products is available from governmental health administrations, private health insurers and other organizations. Governmental and other third-party payors are increasingly seeking to contain healthcare costs and to reduce the price of medical products and services. For example, in 2010, the Patient Protection and Affordable Care Act, or ACA, was enacted with the goal of expanding coverage, increasing quality of care and reducing costs through payment innovation, among other things. Although President Trump and many in Congress have expressed an intention to repeal or repeal and replace the ACA, the Centers for Medicare and Medicaid Services had already made changes to payment models and it is not possible to predict what if any changes will result from any repeal or replacement of the ACA. The uncertainty around the future of the ACA, and in particular the impact to reimbursement levels, may lead to uncertainty or delay in the

purchasing decisions of our customers, which may in turn negatively impact our product sales. If there are not adequate reimbursement levels, our business and results of operations could be adversely affected.

Reduction in research and development budgets and government funding may result in reduced sales.

Our customers include researchers at pharmaceutical and biotechnology companies, academic institutions, and government and private laboratories. Fluctuations in the research and development budgets of these organizations could have a significant adverse effect on demand for our products. Research and development budgets are affected by changes in available resources, the mergers of pharmaceutical and biotechnology companies, changes in spending priorities and institutional budgetary policies. Our results of operations could be adversely affected by any significant decrease in expenditures for life sciences research and development by pharmaceutical and biotechnology companies, academic institutions, and government and private laboratories. In addition, short-term changes in administrative, regulatory or purchasing-related procedures can create uncertainties or other impediments that can have an adverse impact on our results of operations.

In recent years, the pharmaceutical and biotechnology industries have undergone substantial restructuring and consolidation. Additional mergers or consolidation within the pharmaceutical and biotechnology industries could cause us to lose existing customers and potential future customers, which could have a material adverse impact on our results of operations.

Approximately 22% of our sales are generated from demand for our products used in the Academia customer class by researchers at universities, government laboratories and private foundations, and whose funding is dependent upon grants from government agencies, such as the NIH. Although the level of research funding has been increasing in recent years, we cannot assure you that this trend will continue given federal and state budget constraints. Government funding of research and development is subject to the political process, which is inherently unpredictable. Future sales may be adversely affected if our customers delay purchases as a result of uncertainties regarding the approval of government or industrial budget proposals. Also, government proposals to reduce or eliminate budgetary deficits have sometimes included reduced allocations to the NIH and government agencies in other countries that fund life sciences research and development activities. A reduction in government funding for the NIH or government research agencies in other countries could have a serious adverse impact on our results of operations.

Competition could reduce our sales.

We face various competitive factors against greater adoption of our products, in particular the use of laboratory-developed tests (LDTs), where widely available reagents and other chemicals are used in a non-standardized manner to perform sample and assay processing. While the use LDTs will be limited due to the fact that they are not FDA or similarly approved, the success of our business depends in part on the continued conversion of current users of LDTs to our standardized sample and assay technologies and other products. There can be no assurance, however, as to the continued conversion of these potential customers. We are also aware that a significant number of laboratory organizations and competitors are developing and using their own internally developed molecular tests. Some competitor companies may seek regulatory approvals from the U.S. Food and Drug Administration (FDA) or similar non-U.S. regulatory authorities and bring to the market alternative products that could limit the use of our products.

We have experienced, and expect to continue to experience, increasing competition from companies that provide competitive pre-analytical solutions and also other products used by our customers. The markets for some of our products are very competitive and price sensitive. Other product suppliers may have significant advantages in terms of financial, operational, sales and marketing resources as well as experience in research and development. These companies may have developed, or could develop in the future, new technologies that compete with our products or even render our products obsolete. The development of products offering superior technology or a more cost-effective alternative to our products could have a material adverse effect on our results of operations.

We believe that customers in the market for pre-analytical sample technologies as well as for assay technologies display significant loyalty to their initial supplier of a particular product, in particular given the time and expense required by customers to properly integrate these products into their operations. As a result, it may be difficult to convert customers who have purchased products from competitors, and our competitive position may suffer if we are unable to be the first to develop and supply new products.

The time and expense needed to obtain regulatory approval and respond to changes in regulatory requirements could adversely affect our ability to commercially distribute our products and generate sales.

We and our customers operate in a highly regulated environment characterized by continuous changes in the governing regulatory framework, particularly for product approvals. Genetic research activities and products commonly referred to as “genetically engineered” (such as certain food and therapeutic products) are subject to extensive governmental regulation in most developed countries, especially in the major markets for pharmaceutical and diagnostic products such as the European Union, the U.S. and Japan. In recent years, several highly publicized scientific events (most notably in genomic research and “cloning”) have prompted intense public debates on the ethical, philosophical and religious implications of an unlimited

expansion in genetic research and the use of products emerging from this research. As a result of this debate, some key countries may increase existing regulatory barriers, which could adversely affect demand for our products and prevent us from fulfilling our growth expectations. Furthermore, there can be no assurance that any future changes of applicable regulations will not require further expenditures or an alteration, suspension or liquidation of our operations in certain areas, or even in their entirety.

Changes in the existing regulations or adoption of new requirements or policies could adversely affect our ability to sell our approved or cleared products or to seek approvals for new products in other countries around the world. Sales of certain products now in development may be dependent upon us successfully conducting pre-clinical studies, clinical trials and other tasks required to gain regulatory approvals. These trials could be subject to extensive regulation by governmental authorities in the U.S., particularly the FDA, and regulatory agencies in other countries. These trials involve substantial uncertainties and could impact customer demand for our products.

In addition, certain products, especially those intended for use in *in vitro* diagnostic applications, require regulatory approvals in various countries. For example, since the European Union Directive 98/79/EC on *in vitro* diagnostic medical devices (EU-IVD-D) went into effect in 2003, all products and kits used for *in vitro* diagnostic applications must be compliant with this directive. In addition to high-risk products such as HIV testing systems (list A of Annex II of the directive) or blood glucose testing systems (list B of Annex II of the directive), nucleic acid purification products, which are used in diagnostic workflows, are affected by this regulatory framework. The major goals of this directive are to standardize diagnostic procedures within the European Union, to increase reliability of diagnostic analysis and to enhance patient safety. In addition, new Medical Device Regulations and *In Vitro* Diagnostic Regulations, part of which may go into effect as early as 2018, will make major changes in the CE marking certification and compliance requirements for all medical devices and *in vitro* diagnostics. If we fail to obtain any required clearances, approvals, or certifications, it could significantly damage our business in these markets.

Several of our key products and programs are medical devices that are subject to extensive regulation by the FDA under the U.S. Food, Drug and Cosmetic Act. We plan to apply for FDA clearance or approval of additional products in the future. Regulatory agencies in other countries also have medical device and IVD approval regulations that are becoming more extensive. These regulations govern most commercial activities associated with medical devices, including indications for the use of these products as well as other aspects that include product development, testing, manufacturing, labeling, storage, record-keeping, advertising and promotion. Compliance with these regulations is expensive and time-consuming.

Each medical device that we wish to distribute commercially in the U.S. will likely require us to seek either 510(k) clearance or approval of a pre-market approval application (PMA) from the FDA prior to marketing the device for *in-vitro* diagnostic use. Clinical trials related to our regulatory submissions may take years to complete and represent a significant expense. The 510(k) clearance pathway usually takes from three to 12 months, but can take longer. The PMA pathway is more costly, lengthy and uncertain, and can take from one to three years, or longer. For example, it took more than four years to receive pre-market approval from the FDA for our HPV test product for use as a test for the presence of HPV in women with equivocal Pap test results and pre-market approval for the use of our HPV test as a primary adjunctive cervical cancer screening test to be performed in combination with the Pap test for women age 30 and older. The uncertain time period required for regulatory review increases our costs to develop new products and increases the risk that we will not succeed in introducing or selling new products in the U.S.

Our cleared or approved devices, including our diagnostic tests and related equipment, are subject to numerous post-approval requirements. We are subject to inspection and marketing surveillance by the FDA to determine our compliance with regulatory requirements. If the FDA determines that we have failed to comply, it can institute a wide variety of enforcement actions, ranging from warning letters to more severe sanctions such as fines, injunctions and civil penalties, recalls or seizures of our products, operating restrictions, partial suspension or total shutdown of production, denial of our requests for 510(k) clearance or pre-market approval of product candidates, withdrawal of 510(k) clearance or pre-market approval already granted and civil or criminal prosecution. Any enforcement action by the FDA may affect our ability to commercially distribute these products in the U.S.

Some of our products are sold for research purposes in the U.S. We do not promote these products for clinical diagnostic use, and they are labeled "For Research Use Only" (RUO) or "for molecular biology applications." If the FDA were to disagree with our designation of a product, we could be forced to stop selling the product until appropriate regulatory clearance or approval has been obtained. Further, some of our products are used in LDTs, where laboratories use our materials for assays manufactured, validated and performed in house. We do not promote these products for clinical diagnostic use.

Further, the FDA has publicly announced its intention to regulate certain LDTs in a phased-in approach, but draft guidance that was published a couple of years ago was withdrawn at the end of the Obama administration and replaced by an informal nonenforceable discussion paper reflecting some of the feedback that it received on LDT regulation. LDTs represent the majority of molecular tests currently in use in terms of volume, and our automation systems - particularly the QIASymphony platform - are designed to accommodate the automation and validation of these tests. On the other hand, laboratories creating

LDTs may use some of our materials in their tests. We do not promote these products for clinical diagnostic use, but if the FDA were to stop the use of LDTs or significantly limit their area of application, sales of some of our products in the U.S. could be adversely affected. The flexibility to handle LDTs is an advantage for our instruments, particularly the QIASymphony automation system. On the consumables side, however, LDTs can at times create competition to our own commercially approved tests. We are pursuing a strategy of developing new content for our platforms partly by seeking regulatory approvals for new assays that incorporates approvals for these tests to run on QIAGEN instruments. We believe standardized tests that pass regulatory scrutiny and are clinically validated are highly attractive to reference laboratories and healthcare providers in our Molecular Diagnostics customer class, and also to customers in Pharma and Academia who rely on molecular assays to research and develop new products. At this point, the ultimate impact of potential new FDA policies on LDTs is uncertain.

Exchange rate fluctuations may adversely affect our business and operating results.

Because we currently market our products throughout the world, a significant portion of our business is conducted in currencies other than the U.S. dollar, our reporting currency. As a result, fluctuations in value, relative to the U.S. dollar, of the currencies in which we conduct our business have caused and will continue to cause foreign currency transaction gains and losses. Foreign currency transaction gains and losses arising from normal business operations are charged against earnings in the period when incurred. Due to the number of currencies involved, the variability of currency exposures and the potential volatility of currency exchange rates, we cannot predict the effects of future exchange rate fluctuations. While we may engage in foreign exchange hedging transactions to manage our foreign currency exposure, there can be no assurance that our hedging strategy will adequately protect our operating results from the effects of future exchange rate fluctuations.

Changes in tax laws or their application or the termination or reduction of certain government incentives, could adversely impact our overall effective tax rate, results of operations or financial flexibility.

Our effective tax rate reflects the benefit of some income being partially exempt from income taxes due to various intercompany operating and financing activities. The benefit also derives from our global operations where certain income or loss is taxed at rates higher or lower than The Netherlands' statutory rate of 25%. Changes in tax laws or their application with respect to matters such as changes in tax rates, transfer pricing and income allocation, utilization of tax loss carry forwards, intercompany dividends, controlled corporations, and limitations on tax relief allowed on the interest on intercompany debt, and changes to tax credit mechanisms, could increase our effective tax rate and adversely affect our results of operations and limit our ability to repurchase our Common Shares without experiencing adverse tax consequences. Additionally, changes in other laws may subject us to additional excise taxes. Current tax proposals within the U.S. House of Representatives (the "Blueprint"), which include provisions for a border adjustment tax and disallowance of interest expense (among others), could have materially adverse tax consequences. In addition, the U.S. White House is yet to provide its comprehensive tax plan outline, which may or may not be consistent with the Blueprint, thereby raising even more uncertainty in terms of final law and timeline. The increased tax burden as a result of changes in law may adversely affect our results of operations. Additionally, if our tax positions are challenged by tax authorities or other governmental bodies, such as the European Commission, we could incur additional tax liabilities, which could have an adverse effect on our results of operations or financial flexibility.

We rely on collaborative commercial relationships to develop some of our products.

Our long-term business strategy involves entering into strategic alliances as well as marketing and distribution arrangements with academic, corporate and other partners relating to the development, commercialization, marketing and distribution of certain of our existing and potential products. We may be unable to continue to negotiate these collaborative arrangements on acceptable terms, and these relationships also may not be scientifically or commercially successful. In addition, we may be unable to maintain these relationships, and our collaborative partners may pursue or develop competing products or technologies, either on their own or in collaboration with others.

For example, our Personalized Healthcare business includes projects with pharmaceutical and biotechnology companies to co-develop companion diagnostics paired with drugs that those companies either market currently or are developing for future use. The success of these co-development programs, including regulatory approvals for the companion diagnostics, depends upon the continued commitment of our partners to the development of those drugs, the outcome of clinical trials for the drugs and diagnostics, and regulatory approvals of the paired diagnostic tests and drugs. In addition, the future level of sales for companion diagnostics that we bring to market depends to a high degree on the commercial success of the related medicines for which the tests have been designed to be used for determining their use in patients. More companion diagnostics would be sold in combination with a widely prescribed drug than a drug with limited use. Hence, the future success of these diagnostics depends on our Pharma partners' commercialization actions and success.

Some of our customers are requiring us to change our sales arrangements to lower their costs, and this may limit our pricing flexibility and harm our business.

Some of our customers have developed purchasing initiatives to reduce the number of vendors from which they purchase products to lower their supply costs. In some cases, these customers have established agreements with large distributors, which

include discounts and direct involvement in the distributor's purchasing process. These activities may force us to supply large distributors with our products at discounts in order to continue providing products to some customers. For similar reasons, many larger customers, including the U.S. government, have requested, and may request in the future, special pricing arrangements, which can include blanket purchase agreements. These agreements may limit our pricing flexibility, which could harm our business and affect our results of operations. For a limited number of customers, and at the customer's request, we have conducted sales transactions through third-party online intermediaries to whom we are required to pay commissions. If sales grow through these intermediaries, it could have an adverse impact on our results of operations, particularly a negative impact on our gross profit.

Our global operations may be affected by actions of governments, global or regional economic developments, weather or transportation delays, natural disasters or other force majeure events (collectively, unforeseen events) which may negatively impact our suppliers, our customers or us.

Our business involves operations around the world. Our consumable manufacturing facilities are located in Germany, China, the United Kingdom and the U.S. We have established sales subsidiaries in numerous countries and our products are sold through independent distributors serving more than 40 additional countries. Our facilities may be harmed by unforeseen events, and in the event, we or our customers are affected by a disaster, we may experience delays or reductions in sales or production, or increased costs, or may be required to identify alternate suppliers or rely on third-party manufacturers.

To the extent that our suppliers are impacted by a natural disaster or other disruption, we may experience periods of reduced production. Any unexpected interruptions in our production capabilities may lead to delayed or lost sales and may adversely affect our results of operations for the affected period.

In addition, to the extent we temporarily shut down any facility following such an unforeseen event, we may experience disruptions in our ability to ship products to customers or otherwise operate our business. While our global operations give us the ability to ship product from alternative sites, we may not be able to do so because our customers' facilities are shutdown or the local logistics infrastructure is not functioning, and our sales will suffer.

Damage to our property due to unforeseen events and the disruption of our business from casualties may be covered by insurance, but this insurance may not be sufficient to cover all of our potential losses and such insurance may not continue to be available to us on acceptable terms, or at all. In addition, we may incur incremental costs following an unforeseen event which will reduce profits and adversely affect our results of operations.

We depend on suppliers for materials used to manufacture our products, and if shipments from these suppliers are delayed or interrupted, we may be unable to manufacture our products.

We buy materials to create our products from a number of suppliers and are not dependent on any one supplier or group of suppliers for our business as a whole. However, key components of certain products, including certain instrumentation and chemicals, are available only from a single source. If supplies from these vendors are delayed or interrupted for any reason, we may not be able to obtain these materials timely or in sufficient quantities or qualities in order to produce certain products, and this could have an adverse impact on our results of operations.

We heavily rely on air cargo carriers and other overnight logistics services, and shipping delays or interruptions could harm our business.

Our customers in the scientific research markets typically only keep a modest inventory of our products on hand, and consequently require overnight delivery of purchases. As a result, we heavily rely on air cargo carriers and logistic suppliers. If overnight services are suspended or delayed, and other delivery carriers and logistic suppliers cannot provide satisfactory services, customers may suspend a significant amount of their work. The lack of adequate delivery alternatives would have a serious adverse impact on our results of operations.

Our success depends on the continued employment of qualified personnel, any of whom we may lose at any time.

Although we have not experienced any difficulties attracting or retaining management and scientific staff, our ability to recruit and retain qualified, skilled employees will continue to be critical to our success. Given the intense competition for experienced scientists and managers among pharmaceutical and biotechnology companies as well as academic and other research institutions, there can be no assurance that we will be able to attract and retain employees critical to our success on acceptable terms. Initiatives to expand QIAGEN will also require additional employees, including management with expertise in areas such as manufacturing and marketing, and the development of existing managers to lead a growing organization. The failure to recruit and retain qualified employees, or develop existing employees, could have a material adverse impact on our results of operations.

Our ability to accurately forecast our results during each quarter may be negatively impacted by the fact that a substantial percentage of our sales may be recorded in the final weeks or days of the quarter.

The markets we serve are typically characterized by a high percentage of purchase orders being received in the final few weeks or even days of each quarter. Although this varies from quarter to quarter, many customers make a large portion of their purchase decisions late in each quarter, in particular because it is during this period that they receive new information on both their budgets and requirements. Additionally, volatility in the timing of milestones from companion diagnostic partnerships can be difficult to predict. As a result, even late in each quarter, we cannot predict with certainty whether our sales forecasts for the quarter will be achieved.

Historically, we have been able to rely on the overall pattern of customer purchase orders during prior periods to project with reasonable accuracy our anticipated sales for the current or coming quarters. However, if customer purchasing trends during a quarter vary from historical patterns as may occur with changes in market conditions, our quarterly financial results could deviate significantly from our projections. As a result, our sales forecasts for any given quarter may prove not to have been accurate. We also may not have sufficient, timely information to confirm or revise our sales projections for a specific quarter. If we fail to achieve our forecasted sales for a particular quarter, the value of our Common Shares could be adversely affected.

We are subject to privacy and data security laws and rely on secure communication and information systems which, in the event of a breach or failure, expose us to risks.

We rely heavily on communications and information systems to conduct our business. In the ordinary course of business, we collect and store sensitive data, including our intellectual property and other proprietary business information and that of our customers, suppliers and business partners, and personally identifiable information of our customers and employees, in our data centers and on our networks. Our operations rely on the secure processing, storage and transmission of confidential and other information on our computer systems and networks. We are transforming to a digital, cloud-leveraging organization, which places our assets, customer data, and personally identifiable data at a higher risk than in previous years. We are making significant investments to ensure our employees are aware of cyber security risks facing our company and how to prevent data breaches. Although we are not aware of the occurrence of any data breaches on our systems, we are continuously modernizing our cyber security tools in an attempt to keep pace with evolving cyber security risks. External phishing emails (occurring outside of our computer services) is a growing threat that our customers are facing. These emails could lead to the disclosing of intellectual property or personally identifiable information, which could lead to financial harm and cause reputational damage. While our cyber security team works diligently with our customers to mitigate these threats by helping to identify and analyze phishing emails, we cannot guarantee that sensitive data will not be lost or stolen.

A breach in cyber security due to unauthorized access to our computer systems or misuse could include the misappropriation of assets or sensitive information, the corruption data or other operational disruption. Failures to our computer systems and networks could be caused by internal or external events, such as incursions by intruders or hackers, computer viruses, failures in hardware or software, or cyber terrorists. If we do experience a breach or failure of our systems, we could experience operational delays resulting from the disruption of systems, loss due to theft or misappropriation of assets or data, or negative impacts from the loss of confidential data or intellectual property. We may face significant liability in the event any of the personal information we maintain is lost or otherwise subject to misuse or other wrongful use, access or disclosure. Further, we could experience negative publicity resulting in reputation or brand damage with customers or partners.

Additionally, we are subject to privacy and data security laws across multiple jurisdictions, including those relating to the storage of health information, which are complex, overlapping and rapidly evolving. As our activities continue to evolve and expand, we may be subject to additional laws which impose further restrictions on the transfer, access, use, and disclosure of health and other personal information which may impact our business either directly or indirectly. Our failure to comply with applicable privacy or security laws or significant changes in these laws could significantly impact our business and future business plans. For example, we may be subject to regulatory action or lawsuits in the event we fail to comply with applicable privacy laws.

We have a significant amount of debt that may adversely affect our financial condition and flexibility.

We have a significant amount of debt and debt service obligations as well as restrictive covenants imposed on us by our lenders. A high level of indebtedness increases the risk that we may default on our debt obligations and restrictive covenants may prevent us from borrowing additional funds. There is no assurance that we will be able to generate sufficient cash flow to pay the interest on our debt and comply with our debt covenants or that future working capital, borrowings or equity financing will be available to repay or refinance our debt. If we are unable to generate sufficient cash flow to pay the interest on our debt and comply with our debt covenants, we may have to delay or curtail our research and development programs. The level of our indebtedness could, among other things:

- make it difficult for us to make required payments on our debt;
- make it difficult for us to obtain any financing in the future necessary for working capital, capital expenditures, debt service requirements or other purposes;

- limit our flexibility in planning for, or reacting to, changes in our business and the industry in which we compete; and
- make us more vulnerable in the event of a downturn in our business.

Our business may require substantial additional capital, which we may not be able to obtain on terms acceptable to us, if at all.

Our future capital requirements and level of expenses will depend upon numerous factors, including the costs associated with:

- marketing, sales and customer support efforts;
- research and development activities;
- expansion of our facilities;
- consummation of possible future acquisitions of technologies, products or businesses;
- demand for our products and services;
- repayment or refinancing of debt; and
- payments in connection with our hedging activities.

We currently anticipate that our short-term capital requirements will be satisfied by cash flow from our operations. As of December 31, 2016, we had outstanding long-term debt of approximately \$1.1 billion, of which no amount was current. Furthermore, as of December 31, 2016, we had capital lease obligations, including the current portion, of \$2.6 million, that expire in various years through 2020. We may need to refinance all or part of these liabilities before or at their contractual maturities.

If at some point in time our existing resources should be insufficient to fund our activities, we may need to raise funds through public or private debt or equity financings. The funds for the refinancing of existing liabilities or for the ongoing funding of our business may not be available or, if available, not on terms acceptable to us. If adequate funds are not available, we may be required to reduce or delay expenditures for research and development, production, marketing, capital expenditures and/or acquisitions, which could have a material adverse effect on our business and results of operations. To the extent that additional capital is raised through the sale of equity or convertible securities, the issuance of any securities could result in dilution to our shareholders.

The accounting for the Cash Convertible Notes will result in recognition of interest expense significantly greater than the stated interest rate of the notes and may result in volatility to our Consolidated Statements of Income.

We will settle any conversions of the Cash Convertible Notes entirely in cash. Accordingly, the conversion option that is part of the Cash Convertible Notes will be accounted for as a derivative pursuant to accounting standards relating to derivative instruments and hedging activities. Refer to Note 13, "Derivatives and Hedging" and Note 15 "Lines of Credit and Debt," of the Notes to Consolidated Financial Statements. In general, this resulted in an initial valuation of the conversion option separate from the debt component of the Cash Convertible Notes, resulting in an original issue discount. The original issue discount will be accreted to interest expense over the term of the Cash Convertible Notes, which will result in an effective interest rate reported in our financial statements significantly in excess of the stated coupon rates of the Cash Convertible Notes. This accounting treatment will reduce our earnings. For each financial statement period after the issuance of the Cash Convertible Notes, a gain (or loss) will be reported in our financial statements to the extent the valuation of the conversion option changes from the previous period. The Call Options will also be accounted for as derivative instruments, substantially offsetting the gain (or loss) associated with changes to the valuation of the conversion option. This may result in increased volatility to our results of operations.

The cash convertible note hedge and warrant transactions we entered into in connection with the issuance of our Cash Convertible Notes may not provide the benefits we anticipate, and may have a dilutive effect on our common stock.

Concurrently with the issuance of the Cash Convertible Notes, we entered into Call Options and issued Warrants. We entered into the Call Options with the expectation that they would offset potential cash payments by us in excess of the principal amount of the Cash Convertible Notes upon conversion of the Cash Convertible Notes. In the event that the hedge counterparties fail to deliver potential cash payments to us, as required under the Call Options, we would not receive the benefit of such transaction. Separately, we also issued Warrants. The Warrants could separately have a dilutive effect to the extent that the market price per share of our common stock, as measured under the terms of the Warrants, exceeds the strike price of the Warrants.

An impairment of goodwill and intangible assets could reduce our earnings.

At December 31, 2016, our consolidated balance sheet reflected approximately \$1.9 billion of goodwill and approximately \$557.2 million of intangible assets. Goodwill is recorded when the purchase price of a business exceeds the fair value of the tangible and separately measurable intangible net assets. U.S. generally accepted accounting principles (U.S. GAAP) requires

us to test goodwill for impairment on an annual basis or when events or circumstances occur indicating that goodwill might be impaired. Long-lived assets, such as intangible assets with finite useful lives, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment review often cannot be done at the level of the individual asset and it must instead be applied to a group of assets. For the purpose of our annual goodwill impairment testing based on the current circumstances of how we manage our business, this group of assets is the Company as a whole. If we determine that any of our goodwill or intangible assets were impaired, we will be required to take an immediate charge to earnings and our results of operations could be adversely affected.

Our strategic equity investments may result in losses.

We have made, and may continue to make, strategic investments in businesses as opportunities arise. We periodically review the carrying value of these investments for impairment, considering factors that include the most recent stock transactions, book values from the most recent financial statements, and forecasts and expectations of the investee. The results of these valuations may fluctuate due to market conditions and other conditions over which we have no control.

Estimating the fair value of non-marketable equity investments in life science companies is inherently subjective. If actual events differ from our assumptions and other than temporary unfavorable fluctuations in the valuations of the investments are indicated, we could be required to write-down the investment. This could result in future charges on our earnings that could materially adversely affect our results of operations. It is uncertain whether or not we will realize any long-term benefits from these strategic investments.

Doing business internationally creates certain risks.

Our business involves operations in several countries outside of the U.S. Our consumable manufacturing facilities are located in Germany, China, the United Kingdom and the U.S. We source raw materials and subcomponents to manufacture our products from different countries. We have established sales subsidiaries in numerous countries including the U.S., Germany, Japan, the United Kingdom, France, Switzerland, Australia, Canada, the Netherlands, Sweden, Italy, Hong Kong, Singapore, Turkey, South Korea, Taiwan, Malaysia, China, Spain, Brazil, Mexico, South Africa and India. In addition, our products are sold through independent distributors serving more than 40 other countries. Conducting and launching operations on an international scale requires close coordination of activities across multiple jurisdictions and time zones and consumes significant management resources. We have invested heavily in computerized information systems in order to manage more efficiently the widely dispersed components of our operations. If we fail to coordinate and manage these activities effectively, our business and results of operations will be adversely affected.

Our operations are subject to other risks inherent in international business activities, such as general economic conditions in the countries in which we operate, longer accounts receivable payment cycles in certain countries, overlap of different tax structures, unexpected changes in regulatory requirements, and compliance with a variety of foreign laws and regulations. Other risks associated with international operations include import and export licensing requirements, trade restrictions, exchange controls and changes in tariff and freight rates, as may occur as a result of rising energy costs. As a result of these conditions, an inability to successfully manage our international operations could have a material adverse impact on our business and results of operations.

We have made investments in and are expanding our business into emerging markets, which exposes us to risks.

Our top seven emerging markets are Brazil, Russia, India, China, South Korea, Mexico and Turkey, which together accounted for approximately 16% of total sales in 2016, and we expect to continue to focus on expanding our business in these or other fast-growing markets. In addition to the currency and international operation risks described above, our international operations are subject to a variety of risks that include those arising out of the economy, political outlook and language and cultural barriers in countries where we have operations or do business. In many of these emerging markets, we may be faced with several risks that are more significant than in other countries in which we have a history of doing business. These risks include economies that may be dependent on only a few products and are therefore subject to significant fluctuations, weak legal systems which may affect our ability to enforce contractual rights, exchange controls, unstable governments, and privatization or other government actions affecting the flow of goods and currency. In conducting our business, we move products from one country to another and may provide services in one country from a subsidiary located in another country. Accordingly, we are vulnerable to abrupt changes in customs and tax regimes that could have significant negative impacts on our results of operations.

Unethical behavior and non-compliance with laws by our sales agents, consultants, distributors or employees could seriously harm our business.

Our business in countries with a history of corruption and transactions with foreign governments increase the risks associated with our international activities. Based on our international operations, we are subject to the U.S. Foreign Corrupt Practices Act (FCPA), the U.K. Bribery Act and other laws that prohibit improper payments or offers of payments to foreign governments and their officials and political parties by business entities for the purpose of obtaining or retaining business. We have

operations, agreements with third parties and make sales in countries known to experience corruption. Further international expansion may involve increased exposure to such practices. Our activities in these countries, and in all countries as well, create risks of unauthorized payments or offers of payments, non-compliance with laws, or other unethical behavior by any of our employees, consultants, sales agents or distributors, that could be in violation of various laws, including the FCPA, even though these parties are not always subject to our control. It is our policy to implement safeguards to discourage these or other unethical practices by our employees and distributors including online and in-person employee trainings, periodic internal audits and standard reviews of our distributors. However, our existing safeguards and any future improvements may not prove to be effective, and our employees, consultants, sales agents or distributors may engage in conduct for which we might be held responsible. Violations of the FCPA and other laws may result in criminal or civil sanctions, which could be severe, and we may be subject to other liabilities, which could negatively affect our business, results of operations and financial condition.

We depend on patents and proprietary rights that may fail to protect our business.

Our success depends to a large extent on our ability to develop proprietary products and technologies and to establish and protect our patent and trademark rights in these products and technologies. As of December 31, 2016, we owned 349 issued patents in the United States, 241 issued patents in Germany and 1,613 issued patents in other major industrialized countries. In addition, at December 31, 2016, we had 776 pending patent applications, and we intend to file applications for additional patents as our products and technologies are developed. The patent positions of technology-based companies involve complex legal and factual questions and may be uncertain, and the laws governing the scope of patent coverage and the periods of enforceability of patent protection are subject to change. In addition, patent applications in the United States are maintained in secrecy until patents issue, and publication of discoveries in the scientific or patent literature tends to lag behind actual discoveries by several months. Therefore, no assurance can be given that patents will issue from any patent applications that we own or license or if patents do issue, that the claims allowed will be sufficiently broad to protect our technology. In addition, no assurance can be given that any issued patents that we own or license will not be challenged, invalidated or circumvented, or that the rights granted thereunder will provide us competitive advantages. Further, as issued patents expire, we may lose some competitive advantage as others develop competing products and as a result, we may lose revenue.

Certain of our products incorporate patents and technologies that are licensed from third parties and for certain products, these in-licensed patents together with other patents provide us with a competitive advantage. These licenses impose various commercialization, sublicensing and other obligations on us. Our failure to comply with these requirements could result in the conversion of the applicable license from being exclusive to non-exclusive or, in some cases, termination of the license, and as a result, we may lose some competitive advantage and experience a loss of revenue.

We also rely on trade secrets and proprietary know-how, which we seek to protect through confidentiality agreements with our employees and consultants. There can be no assurance that any confidentiality agreements that we have with our employees, consultants, outside scientific collaborators and sponsored researchers and other advisors will provide meaningful protection for our trade secrets or adequate remedies in the event of unauthorized use or disclosure of such information. There also can be no assurance that our trade secrets will not otherwise become known or be independently developed by competitors.

We currently engage in, and may continue to engage in, collaborations with academic researchers and institutions. There can be no assurance that under the terms of such collaborations, third parties will not acquire rights in certain inventions developed during the course of these collaborations.

We are subject to risks associated with patent litigation.

The biotechnology industry has been characterized by extensive litigation regarding patents and other intellectual property rights. We are aware that patents have been applied for and/or issued to third parties claiming technologies for the sample and assay technologies that are closely related to those we use. From time to time, we receive inquiries requesting confirmation that we do not infringe patents of third parties. We endeavor to follow developments in this field, and we do not believe that our technologies or products infringe any proprietary rights of third parties. However, there can be no assurance that third parties will not challenge our activities and, if so challenged, that we will prevail. In addition, the patent and proprietary rights of others could require that we alter our products or processes, pay licensing fees or cease certain activities, and there can be no assurance that we will be able to license any technologies that we may require on acceptable terms. In addition, litigation, including proceedings that may be declared by the U.S. Patent and Trademark Office or the International Trade Commission, may be necessary to respond to any assertions of infringement, enforce our patent rights and/or determine the scope and validity of our proprietary rights or those of third parties. Litigation could involve substantial cost, and there can be no assurance that we would prevail in any proceedings.

Our business exposes us to potential product liability.

The marketing and sale of our products and services for certain applications entail a potential risk of product liability. Although we are not currently subject to any material product liability claims, product liability claims may be brought against us in the future. Further, there can be no assurance that our products will not be included in unethical, illegal or inappropriate research or

applications, which may in turn put us at risk of litigation. We carry product liability insurance coverage, which is limited in scope and amount. There can be no assurance that we will be able to maintain this insurance at a reasonable cost and on reasonable terms, or that this insurance will be adequate to protect us against any or all potential claims or losses.

We are subject to various laws and regulations generally applicable to businesses in the different jurisdictions in which we operate, including laws and regulations applicable to the handling and disposal of hazardous substances. The risk of accidental contamination or injury from these materials cannot be completely eliminated. In the event of such an accident, we could be held liable for any damages that result, and any such liability could have a material adverse impact on us.

Our operating results may vary significantly from period to period and this may affect the market price of our Common Shares.

Our operating results may vary significantly from quarter to quarter, and also from year to year, since they are dependent upon a broad range of factors that include demand for our products, the level and timing of customer research budgets and commercialization efforts, the timing of government funding budgets of our customers, the timing of our research and development activities and related regulatory approvals, the impact of sales and marketing expenses, the impact of restructuring activities, the introduction of new products by us or our competitors, competitive market conditions, exchange rate fluctuations and general economic conditions. Our expense levels are based in part on our expectations as to future sales trends. As a result, sales and earnings may vary significantly from quarter to quarter or from year to year, and actual sales and earnings results in any one period will not necessarily be indicative of results to be anticipated in subsequent periods. Our results may also fail to meet or exceed the expectations of securities analysts or investors, which could cause a decline in the market price of our Common Shares.

Our holding company structure makes us dependent on the operations of our subsidiaries.

QIAGEN N.V. is incorporated under Dutch law as a public limited liability company (*naamloze vennootschap*), and is organized as a holding company. Currently, the material assets are the outstanding shares of the QIAGEN subsidiaries, intercompany receivables and other financial assets such as cash and short-term investments. As a result, QIAGEN N.V. is dependent upon payments, dividends and distributions from the subsidiaries for funds to pay operating and other expenses as well as to pay future cash dividends or distributions, if any, to holders of our Common Shares. Dividends or distributions by subsidiaries in a currency other than the U.S. dollar may result in a loss upon a subsequent conversion into U.S. dollars.

U.S. civil liabilities may not be enforceable against us.

We are incorporated under Dutch law, and substantial portions of our assets are located outside of the U.S. In addition, certain members of our Managing and Supervisory Boards and our officers reside outside the U.S. As a result, it may be difficult for investors to effect service of process within the U.S. upon us or such other persons, or to enforce outside the U.S. any judgments obtained against such persons in U.S. courts, in any action, including actions predicated upon the civil liability provisions of U.S. securities laws.

In addition, it may be difficult for investors to enforce, in original actions brought in courts in jurisdictions located outside the U.S., rights predicated upon the U.S. securities laws. There is no treaty between the U.S. and the Netherlands for the mutual recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. As a result, a final judgment for the payment of money rendered by any federal or state court in the U.S. based on civil liability, whether or not predicated solely upon the federal securities laws, would not be directly enforceable in the Netherlands. However, if the party in whose favor such final judgment is rendered brings a new suit in a competent court in the Netherlands, such party may submit to the Dutch court the final judgment which has been rendered in the U.S. If the Dutch court finds that the jurisdiction of the federal or state court in the U.S. has been based on grounds that are internationally acceptable and that proper legal procedures have been observed, the Dutch court will, in principle, give binding effect to the final judgment which has been rendered in the U.S. without substantive re-examination or re-litigation on the merits of the subject matter thereof, unless such judgment contravenes Dutch principles of public policy. Based on the foregoing, there can be no assurance that U.S. investors will be able to enforce against us, members of our Managing or Supervisory Boards, or officers who are residents of the Netherlands or countries other than the U.S. any judgments obtained in U.S. courts in civil and commercial matters, including judgments under the federal securities laws. In addition, there is doubt as to whether a Dutch court would impose civil liability on us, the members of our Managing or Supervisory Boards, or our officers in an original action predicated solely upon the federal securities laws of the U.S. brought in a court of competent jurisdiction in the Netherlands against us or such members or officers, respectively.

Our Common Shares may have a volatile public trading price.

The market price of our Common Shares since our initial public offering in September 1996 has increased significantly and been highly volatile. In the last two years, the price of our Common Shares has ranged from a high of \$28.84 to a low of \$19.94 on NASDAQ, and a high of €27.26 to a low of €17.76 on the Frankfurt Stock Exchange. In addition to overall stock market fluctuations, factors that may have a significant impact on the price of our Common Shares include:

- announcements of technological innovations or the introduction of new products by us or our competitors;
- developments in our relationships with collaborative partners;
- quarterly variations in our operating results or those of our peer companies;
- changes in government regulations, tax laws or patent laws;
- developments in patent or other intellectual property rights;
- developments in government spending budgets for life sciences-related research;
- general market conditions relating to the diagnostics, applied testing, pharmaceutical and biotechnology industries; and
- impact from foreign exchange rates.

The stock market has from time to time experienced extreme price and trading volume fluctuations that have particularly affected the market for technology-based companies. These fluctuations have not necessarily been related to the operating performance of these companies. These broad market fluctuations may adversely affect the market price of our Common Shares.

Holders of our Common Shares should not expect to receive dividend income.

In January 2017, we completed a synthetic share repurchase that combined a direct capital repayment with a reverse stock split and we plan to complete an additional share repurchase program of up to \$50.0 million by the end of 2017. We do not anticipate paying any cash dividends on our Common Shares for the foreseeable future, and until the January 2017 distribution in connection with a synthetic share repurchase, we have not paid cash dividends since our inception. Although we do not anticipate paying any cash dividends on a regular basis, the distribution of any cash dividends in a currency other than the U.S. dollar will be subject to the risk of foreign currency transaction losses. Investors should not invest in our Common Shares if they are seeking dividend income; the only return that may be realized through investing in our Common Shares would be through an appreciation in the share price.

Holders of our Common Shares may not benefit from continued stock repurchase programs.

Between October 2012 and April 2013, we repurchased a total of 5.1 million of our Common Shares for an aggregate cost of \$99.0 million, and between September 2013 and June 2014, we repurchased an additional 4.4 million of our Common Shares for \$100.4 million (including performance fees). In 2014 and 2015, we repurchased a total of 2.9 million Common Shares for an aggregate cost of \$69.9 million under our third share repurchase program. In January 2017, we completed a synthetic share repurchase that combined a direct capital repayment with a reverse stock split. The transaction was announced in August 2016 and involved an approach used by various large, multinational Dutch companies to provide returns to all shareholders in a faster and more efficient manner than traditional open-market purchases. \$244.0 million was returned to shareholders through the transaction, which reduced the total number of issued common shares by approximately 3.7% to 230.8 million (of which 4.95 million in treasury) as of January 31, 2017. In addition to the synthetic share repurchase, we announced additional share repurchases to take place via the open market during the remainder of 2017 with a view to return an aggregate amount of \$300.0 million to our shareholders.

The purpose of these repurchases has been to hold the shares in treasury in order to satisfy obligations from exchangeable debt instruments and/or employee share-based remuneration plans and thus to reduce dilution to existing holders of our Common Shares. We may decide not to continue such programs in the future, the covenants we have with our lenders may limit our ability to use available cash to do so, and the market price of our Common Shares may make such repurchases less desirable. In any of these cases, holders of our Common Shares may suffer dilution from conversion of our indebtedness or issuance of shares pursuant to employee remuneration plans that would otherwise be at least partially offset by repurchased shares.

Future sales and issuances of our Common Shares could adversely affect our stock price.

Any future sale or issuance of a substantial number of our Common Shares in the public market, or any perception that a sale may occur, could adversely affect the market price of our Common Shares. Under Dutch law, a company can issue shares up to its authorized share capital provided for in its Articles of Association. Pursuant to our Articles of Association, our authorized share capital amounts to EUR 9.0 million, which is divided into 410.0 million common shares, 40.0 million financing preference shares and 450.0 million preference shares, with all shares having a EUR 0.01 par value. As of December 31, 2016, a total of approximately 234.6 million Common Shares were outstanding along with approximately 11.6 million additional shares reserved for issuance upon exercise or release of outstanding stock options and awards, of which 1.4 million were vested. A total of approximately 17.9 million Common Shares are reserved and available for issuances under our stock plans as of December 31, 2016, including the shares subject to outstanding stock options and awards. The majority of our outstanding Common Shares may be sold without restriction, except shares held by our affiliates, which are subject to certain limitations on resale. Additionally, the Warrants issued in connection with the Cash Convertible Notes Call Spread Overlay cover an aggregate of 25.8 million shares of our common stock (subject to anti-dilution adjustments under certain circumstances).

Shareholders who are United States residents could be subject to unfavorable tax treatment.

We may be classified as a “passive foreign investment company,” or a PFIC, for U.S. federal income tax purposes if certain tests are met. Our treatment as a PFIC could result in a reduction in the after-tax return to holders of Common Shares and would likely cause a reduction in the value of these shares. If we were determined to be a PFIC for U.S. federal income tax purposes, highly complex rules would apply to our U.S. shareholders. We would be considered a PFIC with respect to a U.S. shareholder if for any taxable year in which the U.S. shareholder held the Common Shares, either (i) 75% or more of our gross income for the taxable year is passive income; or (ii) the average value of our assets (during the taxable year) which produce or are held for the production of passive income is at least 50% of the average value of all assets for such year. Based on our income, assets and activities, we do not believe that we were a PFIC for U.S. federal income tax purposes for our taxable year ended December 31, 2016, and do not expect to be a PFIC for the current taxable year or any future taxable year. No assurances can be made, however, that the Internal Revenue Service will not challenge this position or that we will not subsequently become a PFIC. In countries outside the U.S., other or similar tax regimes may apply and result in unfavorable tax treatment for any dividends received.

Provisions of our Articles of Association and Dutch law and an option we have granted may make it difficult to replace or remove management and may inhibit or delay a takeover.

Our Articles of Association (Articles) provide that our shareholders may only suspend or dismiss our Managing Directors and Supervisory Directors against their wishes with a vote of two-thirds of the votes cast if such votes represent more than 50% of our issued share capital. If the proposal was made by the joint meeting of the Supervisory Board and the Managing Board, a simple majority is sufficient. The Articles also provide that if the members of our Supervisory Board and our Managing Board have been nominated by the joint meeting of the Supervisory Board and Managing Board, shareholders may only overrule this nomination with a vote of two-thirds of the votes cast if such votes represent more than 50% of our issued share capital.

Certain other provisions of our Articles allow us, under certain circumstances, to prevent a third party from obtaining a majority of the voting control of our Common Shares through the issuance of Preference Shares. Pursuant to our Articles and the resolution adopted by our General Meeting of Shareholders, our Supervisory Board is entitled to issue Preference Shares in case of an intended takeover of our company by (i) any person who alone or with one or more other persons, directly or indirectly, have acquired or given notice of an intent to acquire (beneficial) ownership of an equity stake which in aggregate equals 20% or more of our share capital then outstanding or (ii) an “adverse person” as determined by the Supervisory Board. If the Supervisory Board opposes an intended takeover and authorizes the issuance of Preference Shares, the bidder may withdraw its bid or enter into negotiations with the Managing Board and/or Supervisory Board and agree on a higher bid price for our Shares.

In 2004, we granted an option to the Stichting Preferente Aandelen QIAGEN, or the Foundation (*Stichting*), subject to the conditions described in the paragraph above, which allows the Foundation to acquire Preference Shares from us. The option enables the Foundation to acquire such number of Preference Shares as equals the number of our outstanding Common Shares at the time of the relevant exercise of the option, less one Preference Share. When exercising the option and exercising its voting rights on these Preference Shares, the Foundation must act in our interest and the interests of our stakeholders. The purpose of the Foundation option is to prevent or delay a change of control that would not be in the best interests of us and our stakeholders. An important restriction on the Foundation’s ability to prevent or delay a change of control is that a public offer must be announced by a third party before it can issue (preference or other) protective shares that would enable the Foundation to exercise rights to 30% or more of the voting rights without an obligation to make a mandatory offer for all shares held by the remaining shareholders. In addition, the holding period for these shares by the Foundation is restricted to two years, and this protective stake must fall below the 30% voting rights threshold before the two-year period ends.

Note Regarding Forward-Looking Statements and Risk Factors

Our future operating results may be affected by various risk factors, many of which are beyond our control. Certain statements included in this Annual Report and the documents incorporated herein by reference may be forward-looking statements within the meaning of Section 27A of the U.S. Securities Act of 1933, as amended, and Section 21E of the U.S. Securities Exchange Act of 1934, as amended, including statements regarding potential future net sales, gross profit, net income and liquidity. These statements can be identified by the use of forward-looking terminology such as “believe,” “hope,” “plan,” “intend,” “seek,” “may,” “will,” “could,” “should,” “would,” “expect,” “anticipate,” “estimate,” “continue” or other similar words. Reference is made in particular to the description of our plans and objectives for future operations, assumptions underlying such plans and objectives, and other forward-looking statements. Such statements are based on management’s current expectations and are subject to a number of factors and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. We caution investors that there can be no assurance that actual results or business conditions will not differ materially from those projected or suggested in such forward-looking statements as a result of various factors. Factors which could cause such results to differ materially from those described in the forward-looking statements include those set forth in the risk factors below. As a result, our future success involves a high degree of risk. When considering forward-looking

statements, you should keep in mind that the risk factors could cause our actual results to differ significantly from those contained in any forward-looking statement.

Item 4. Information on the Company

Description of our business

Company overview

QIAGEN is a global leader in Sample to Insight solutions that transform biological samples into valuable molecular insights. Our vision is to make improvements in life possible by enabling our customers in four broad classes - Molecular Diagnostics, Applied Testing, Pharma and Academia - to achieve outstanding success and breakthroughs using reliable and efficient solutions for molecular testing.

QIAGEN's Sample to Insight solutions integrate sample and assay technologies, bioinformatics and automation systems. Our solutions support more than 500,000 customers worldwide in generating insights into the molecular building blocks of life. Our proven solutions are providing answers in hospitals and laboratories worldwide, helping make sense of the increasing volumes and complexity of biological information.

Since the first sequencing of the human genome was completed in 2003, knowledge of the molecular basis of life, its mechanisms and diseases has been growing exponentially. In what observers call "the Century of Biology," dramatic acceleration in the speed of sequencing - and reduction in cost - is generating new discoveries and vast quantities of genomic data. This revolution in the life sciences is transforming healthcare and influencing many other areas of everyday life. QIAGEN's mission is to drive this ongoing wave of discoveries and the wide-ranging applications they are spawning.

QIAGEN began operations in 1986 as a pioneer in the emerging biotechnology sector, introducing a novel method that standardized and accelerated extraction and purification of nucleic acids from biological samples. As molecular biology has grown to influence many areas of life, QIAGEN has expanded to serve the full spectrum of market needs. Our sample technologies are unmatched in quality for isolating and preparing DNA (deoxyribonucleic acid), RNA (ribonucleic acid) and proteins from blood or other liquids, tissue, plants or other materials. Our assay technologies amplify, enrich and make these biomolecules accessible for analysis, such as identifying the genetic information of a pathogen or a gene mutation in a tumor. QIAGEN's industry-leading bioinformatics solutions allows users to analyze and interpret data to provide relevant, actionable insights. Our automation platforms based on polymerase chain reaction (PCR), next-generation sequencing (NGS) and other technologies tie these together in seamless and cost-effective molecular testing workflows - from Sample to Insight.

Net sales of \$1.34 billion in 2016 were comprised of consumable kits and other revenues (87% of sales) and automated systems and instruments (13% of sales). Approximately 50% of net sales in 2016 were in Molecular Diagnostics, and 50% went to Life Sciences customer classes in the Academia, Pharma and Applied Testing markets.

QIAGEN has grown by introducing innovative products and making strategic acquisitions that address the rapidly evolving needs of customers to transform biological samples into valuable molecular insights. We have funded our growth through internally generated funds, debt offerings and private and public sales of equity securities. QIAGEN has global shares that are listed on the NASDAQ exchange under the ticker symbol "QGEN" and on the Frankfurt Prime Standard as "QIA."

The company is registered under its commercial and legal name QIAGEN N.V. with the trade register (*kamer van koophandel*) of the Dutch region Limburg Noord under file number 12036979. QIAGEN N.V. is a public limited liability company (*naamloze vennootschap*) under Dutch law as a holding company. Our principal executive office is located at Hulsterweg 82, 5912 PL Venlo, The Netherlands, and our telephone number is +31-77-355-6600.

As a holding company, QIAGEN conducts business through subsidiaries located throughout the world. Further information about QIAGEN can be found at www.qiagen.com. By referring to our website, we do not incorporate the website or any portion of the website by reference into this Annual Report.

Recent Developments

QIAGEN has recently achieved a number of strategic milestones in serving customers and growing our business.

Leadership in differentiated core technologies continuing to drive growth:

Building on our long-standing core strength in sample technologies, which laboratories around the world rely on to obtain highest-quality DNA and RNA for molecular testing, QIAGEN continued to expand our offerings in 2016 with differentiated solutions for the front-end challenges of customers. QIAGEN technologies process an estimated 50,000 biological samples a day. Our strategic focus is on rapidly growing areas of research and clinical application.

- QIAGEN expanded our leadership in "liquid biopsies," solutions that unlock molecular insights from blood or other fluids as non-invasive alternatives to surgical biopsies. Our technologies for isolation and stabilization of nucleic acids are used

in an estimated 80% of liquid biopsy testing. In 2016, we continued to introduce cutting-edge technologies to handle the sample and library preparation challenges.

- QIAGEN also launched the first Sample to Insight NGS solution for analyzing either liquid biopsies or formalin-fixed, paraffin-embedded (FFPE) tissue samples in clinical cancer research, a complete workflow using the GeneReader NGS System and our Actionable Insights Tumor Panel and our unique and new QIAGEN Clinical Insights bioinformatics solution.
- QIAGEN delivered brisk growth from the industry's broadest Sample to Insight portfolio for research on the microbiome and metagenomics, the study of microbial interactions with the environment and humans. Following the 2015 acquisition of MO BIO Laboratories, QIAGEN sample technologies are the starting point for the majority of these studies. In 2016 we integrated front-end kits with specialized assays and bioinformatics to provide complete Sample to Insight solutions.
- Acquisition of the Danish company Exiqon A/S in 2016 added to QIAGEN's portfolio of solutions to unlock insights from RNA in the fight against cancer and other diseases. Integrating the Exiqon solutions gives QIAGEN a leading position in the market for non-coding RNA (ncRNA) analysis in epigenetic research, with future potential to expand into clinical diagnostics.
- QIAGEN further expanded our leadership in solutions for single-cell analysis, which looks at individual cells and their heterogeneity to research the pathways of disease or to monitor patient progress, in fields such as oncology, immunology, neurobiology and stem-cell biology. In 2016, we launched QIAscout, a compact instrument enabling researchers to efficiently select and isolate viable single cells for analysis with NGS, PCR or other methods, as well as adding novel single-cell sample kits.

Quantiferon-TB Gold growing rapidly as world focuses on tuberculosis control:

- QIAGEN is aiding the global fight against tuberculosis (TB), an infectious disease that kills about 1.8 million people annually, with our QuantiFERON-TB Gold and QuantiFERON-TB Gold Plus tests, the most accurate assays for detecting infection. Screening for latent TB in high-risk patient populations, an asymptomatic phase of the infection that can lie dormant for years and then "reactivate" as active, contagious TB, is increasingly recognized as a key component in controlling the disease.
- Our novel technology, delivering reliable results with the third-generation QuantiFERON-TB Gold (QFT) and fourth-generation QuantiFERON-TB Gold Plus (QFT-Plus), has become the latent TB screening technique of choice around the world. The efficient, laboratory-based tests are displacing the less accurate, century-old tuberculin skin test, and sales surpassed \$140 million in 2016.
- QuantiFERON-TB Gold gained momentum in 2016 from key clinical guidelines for TB control. The U.S. Preventive Services Task Force recommended that primary care clinicians screen adult patients at high risk for latent TB – and cited QFT as a test proven to be reliable. A separate task force, backed by the U.S. Centers for Disease Control and Prevention (CDC) and two professional societies, updated evidence-based guidelines to broaden the preference for modern blood-based TB tests such as QFT over the century-year-old tuberculin skin test. It also broadened the groups to be screened for TB infection. These guidelines were endorsed by the European Respiratory Society.
- QuantiFERON-TB Gold-Plus was submitted to the U.S. Food and Drug Administration in late 2016 for pre-market approval. QFT-Plus has been launched in more than 60 countries following European CE-IVD clearance in late 2014. The new test, which adds proprietary CD8 T-cell technology and other enhancements to our market-leading test, also gained important support in the global TB control community. The World Health Organization (WHO) 2016 annual report on TB cited early clinical results on QFT-Plus indicating its ability to measure CD8 T-cell response may be able to identify patients at greater risk of progression to active TB.

Next-generation sequencing solutions extending QIAGEN's reach:

- Our GeneReader NGS System, the first complete Sample to Insight next-generation sequencing solution designed for any laboratory to deliver actionable results, has been well received in early commercialization since its late-2015 launch. GeneReader NGS adoption is accelerating, achieving our goal of 55-60 placements by year-end 2016, more than a 10% share of the estimated global annual market for new placements of benchtop sequencers in oncology applications. The system is the world's first truly end-to-end NGS workflow from primary sample to a final report - providing a simpler, more cost-effective way for laboratories to take advantage of NGS technology and improve outcomes.
- QIAGEN has initiated the roll out of a deep pipeline of enhancements to the GeneReader NGS System, adding value for basic and translational research labs. In 2016 these included adaptation of our Actionable Insights Tumor Panel for use with liquid biopsies, adding to FFPE tissue samples; an extensive package of quality control and verification data for setup and validation; a partnership to integrate the GeneReader NGS System with users' laboratory information management systems (LIMS); and the option of QIASymphony SP for higher-throughput front-end automation.

- In November 2016, two months after a U.S. court issued a preliminary injunction restricting U.S. customers' access to the GeneReader NGS System while considering a competitor's lawsuit, QIAGEN announced relaunch of the workflow with new sequencing chemistry that avoids the patent at issue in the United States. The new chemistry was made available to select U.S. customers in an early-access phase starting December 1, 2016, and full commercialization is set for early 2017. In the rest of the world, GeneReader NGS System marketing has continued without interruption, and the new chemistry with enhanced performance will be rolled out in 2017.
- In 2017, QIAGEN expects to launch additional enhancements and new content to improve the utility, efficiency and cost effectiveness of the GeneReader NGS System. We plan to launch at least five new GeneRead QIAact panels, including in-depth breast and lung cancer panels as well as customized panels for specific customer needs. Enhancements to the Actionable Insights Tumor Panel (ATP), the first GeneRead QIAact panel, reduce turnaround time and increase the number of tissue or liquid biopsy samples analyzed. Proprietary Digital NGS technology in the new panels will detect additional mutation types such as large rearrangements, gene fusions, copy number variations (CNVs) and genomic insertions or deletions (InDels), in addition to current detection of single nucleotide polymorphisms (SNPs).
- As the leader in "universal" technologies for use with any sequencing system, QIAGEN continues to expand our portfolio. In 2016, we added to our line-up of liquid biopsy solutions with the launch of the QIAseq cfDNA All-in-One Kit, the first dedicated solution for use on any NGS platform that combines cell-free DNA extraction and library preparation for liquid biopsy analysis. QIAGEN pre-analytical solutions are used in an estimated 80% of all NGS reactions.
- Also in 2016, we launched a comprehensive portfolio of QIAseq NGS panels with our Digital NGS technology, enabling more accurate quantification and detection of DNA, RNA and miRNA across all next-generation sequencing platforms.

Leadership in Personalized Healthcare continuing its momentum:

- QIAGEN continues to roll out novel companion diagnostics that deliver actionable insights enabling treatment decisions based on patients' individual genomic information. In 2016, QIAGEN launched the new *ipsogen* CALR RGQ PCR Kit in Europe, a unique CE-IVD marked assay for use in blood cancers known as myeloproliferative neoplasms (MPN). As the latest addition to the *ipsogen* portfolio of assays for common and rare leukemia types, the test runs on QIAGEN's QIASymphony RGQ platforms.
- Our Personalized Healthcare pipeline continues to expand through collaborations with pharmaceutical and biotech companies to develop and commercialize companion diagnostics paired with targeted drugs. In 2016, we reached a milestone of 20 master collaboration agreements with Pharma companies, each providing for multiple projects. We added partnerships in 2016 with Mirati Therapeutics, Inc., to commercialize a companion diagnostic for a targeted therapy in non-small cell lung cancer; with Daiichi Sankyo for multiple projects; and with an undisclosed partner in immuno-oncology. Most of the specific projects are unannounced at the request of the Pharma partners. As the world's leading independent developer of molecular technologies, QIAGEN is the industry's preferred partner for developing companion diagnostics.
- QIAGEN offers our collaborators in Personalized Healthcare access to multiple platforms, including QIASymphony and the GeneReader NGS System and the multi-modal Modaplex system. These projects include development of single-target assays or multiplex panels, depending on specific needs and biomarkers involved for particular diseases and targeted therapies. In addition, some Personalized Healthcare tests provide predictive value for therapy or enable monitoring of individual patients' progress.
- In 2016, we entered a collaboration with Therawis Diagnostics GmbH to develop and commercialize predictive assays in oncology. An initial project is to commercialize an assay for PITX2 as a biomarker to predict effectiveness of anthracycline treatment in triple negative and other high-risk breast cancer patients, an area of high unmet need.
- QIAGEN also began a collaboration with HTG Molecular Diagnostics, Inc. (HTG), to create a complete NGS-based solution for developing of companion diagnostics with Pharma companies, with a focus on oncology. The agreement includes assay development, commercialization and manufacturing. QIAGEN also made a minority investment in HTG.

QIASymphony delivering platform growth as content menu expands:

- QIAGEN achieved our 2016 goal of surpassing 1,750 cumulative placements of the flexible modular QIASymphony platform, up from 1,500 at the end of 2015. The QIASymphony platform offers customers Sample to Insight automation for medium-throughput molecular testing workflows. The larger installed base and expanding content menus drove our 2016 growth in consumables.
- In 2016, QIAGEN made the QIASymphony SP instrument available as a front-end option for sample processing for the GeneReader NGS System, adding highly automated, higher throughput sample volumes and high flexibility to the world's first complete Sample to Insight solution for NGS. The NGS workflow now integrates seamlessly with QIASymphony SP, enabling laboratories outside the United States to perform sample processing of different sample types simultaneously with continuous loading, random access and greater speed for demanding environments.

- To enhance the QIASymphony platform's value to customers worldwide, QIAGEN continues to advance a pipeline of development projects for regulator-approved molecular diagnostics to run on the platform, as well as expanding our Applied Testing content.
- The QIASymphony platform serves all of our customer classes: Approximately 60% of current placements are in Molecular Diagnostics, and 40% are in the Life Sciences with Applied Testing, Pharma and Academia customers.

Industry-leading bioinformatics turning raw genomic data into valuable insights:

- QIAGEN's broad offering of content-enabled software, the leading portfolio of bioinformatics enabling users to gain valuable insights from sequencing data, continues to grow as a standalone franchise. In addition, it increasingly serves as a driver for Sample to Insight workflows across all platforms and applications. Our bioinformatics turn vast amounts of genomic data into actionable insights for customers, addressing a critical bottleneck in next-generation sequencing, especially for clinical research and diagnostics. We continue to roll out new solutions to meet specialized needs in research and healthcare and to integrate rich bioinformatics with QIAGEN's molecular testing workflows.
- In January 2017, QIAGEN acquired OmicSoft Corporation to expand our offering with solutions enabling scientists to visualize and mine large institutional and publicly available "omics" datasets, in addition to the expertly curated, literature-based datasets marketed by QIAGEN. The OmicSoft solutions meet a growing need in discovery and translational research to access and manage huge amounts of data on DNA, RNA and other variables generated by next-generation sequencing.
- The unique RNA-seq Explorer Solution, a bioinformatics-driven approach to analysis and interpretation of RNA sequencing data from liquid biopsies, was introduced in 2016. RNA-seq Explorer integrates QIAGEN genomic knowledge bases with software solutions to generate clear insights for research into the detection, diagnosis and treatment of cancer.
- QIAGEN also enhanced our research workflow for hereditary and rare diseases, targeting difficult "diagnostic odyssey" cases with capabilities using liquid biopsies for non-invasive prenatal testing (NIPT) and cancer biomarker discovery.
- In 2016, we partnered with lab informatics company Genohm to empower GeneReader NGS System users with seamless data management by integrating our genomic workflow with their laboratory information management systems (LIMS). GeneRead Link, a middleware co-developed by the two companies, provides full connectivity for GeneReader NGS workflows with the leading LIMS systems.
- QIAGEN pursues collaborations and linkages across the genomics and bioinformatics industry to offer users the richest access possible to insights for research and diagnostics. In 2016, we offered our Hereditary Disease Solution customers a plugin to implement the Broad Institute's GATK best practices, the gold standard for variant calling, as part of the QIAGEN Biomedical Genomics Workbench software. For microbiome researchers, we partnered with CosmosID, a leading genomic big data company, in the launch of a metagenomics analysis plug-in for the QIAGEN Microbial Genomics Pro Suite and CLC Genomics Workbench.
- In 2016, we announced collaborations to combine our industry-leading genome analysis applications with hardware solutions from tech leaders Intel and BioTeam, aiming to create infrastructure solutions making population-scale genomic analysis feasible for more researchers. Both projects are in development for use in managing and interpreting the massive data from NGS research.

Targeted actions improving efficiency and increasing returns to shareholders

- In 2016, QIAGEN announced initiatives to return \$300 million in capital to shareholders by the end of 2017. In addition, we announced a series of targeted restructuring actions to improve efficiency and profitability, while supporting sales momentum, after a period of investment to support QIAGEN's transformation as a molecular testing leader.
- The commitment to return \$300 million in cash to QIAGEN shareholders included a synthetic share repurchase, which was completed in January 2017. This transaction returned about \$244 million to shareholders through a combination of a direct capital repayment with a reverse stock split. QIAGEN intends to return the balance of the \$300 million commitment through open-market share repurchases during 2017.
- Restructuring actions initiated in the fourth quarter of 2016 include closing the site in Valencia, California, and spinning off certain activities in Hombrechtikon, Switzerland; expanding the use of shared service centers and global centers of excellence to consolidate activities; streamlining selected organizational structures to reduce complexity; realigning roles of global and regional marketing teams; and optimizing sales channels to better engage with customers, including greater use of digital technologies. A pre-tax restructuring charge of \$79.1 million (\$0.24 per share after taxes), including approximately \$42.4 million of non-cash items, was recorded in the fourth quarter of 2016. Further pre-tax charges of approximately \$10 million (or about \$0.03 per share after taxes) are expected during 2017.

Our Products

QIAGEN leverages our leadership in Sample to Insight solutions for molecular testing across a wide range of applications and customer classes. We provide more than 500 core consumable products (sample and assay “kits”), as well as instruments that automate the use of these products. Our bioinformatics solutions connect laboratory workflows and process extensive amounts of genomic data, reporting relevant insights to enable scientists or clinicians to decide on further action.

QIAGEN’s diverse revenue streams can be seen in two main categories: consumables and related revenue, and automation platforms and instruments.

Consumables and related revenues

Consumable products, accounting for approximately 79%-80% of net sales, typically include sample technologies to extract and purify molecules of interest from biological samples and assay technologies that make the information in these genomic molecules available for analysis and interpretation. To maximize customer convenience and reduce user error, these kits contain all necessary reagents and a manual of protocols and background information. Reliability, standardization, ease of use and cost-effectiveness are keys to the success of molecular testing products.

QIAGEN’s **differentiated sample technologies** ensure that each biological sample is processed in a highly reproducible, standardized method with the highest quality. A broad range of kits support applications such as plasmid DNA purification, RNA purification and stabilization, genomic and viral nucleic acid purification, DNA cleanup after PCR and sequencing, target enrichment, and library preparation for sequencing. For example, in 2016 we introduced several innovative sample and library preparation kits adding to our global leadership in solutions for minimally-invasive liquid biopsies, and we expanded our portfolio of solutions for processing difficult samples in research into the microbiome and metagenomics.

Our **assay technology solutions** contain all the needed reagents to enable customers to target molecules of interest for detection on platforms supporting PCR, NGS or multimodal analysis. Each assay kit is sufficient to support a number of applications, varying from a single application to kits containing more than 1,000 applications each. Applications include open, general-purpose PCR reagents, as well as kits for the detection of specific viral or bacterial pathogens and parasites in humans and animals, pharmacogenomic testing and genotyping. In PCR, examples are our *therascreen* family of companion diagnostics, *artus* line for profiling infectious diseases, and *investigator* assays for forensics and human identification and our GeneGlobe portal gives customers access to a vast portfolio of pre-designed assays. A growing portfolio of NGS gene panels enable sequencing to identify DNA or RNA variants relevant to clinical or research targets in cancer or other diseases. In 2016 we launched a comprehensive portfolio of universal QIAseq kits with proprietary Digital NGS technology to run on any NGS platform, and in early 2017 we added GeneRead QIAact lung cancer and breast cancer panels to our growing menu of molecular content designed for the GeneReader NGS System.

Related revenues, accounting for approximately 7%-8% of our net sales, include **bioinformatics solutions**, sold as freestanding software or cloud-based solutions and also integrated into QIAGEN consumables and instruments for seamless Sample to Insight workflows. Examples of our bioinformatics solutions:

Ingenuity Variant Analysis, a powerful cloud-based platform tapping into the QIAGEN Knowledge Base, interprets data from NGS analysis to efficiently filter genetic variants and interpret links to diseases.

QIAGEN Clinical Insight, a unique evidence-based decision support solution, draws on the QIAGEN Knowledge Base to deliver clinically relevant insights from complex genomic variants identified in NGS.

CLC Genomics Workbench incorporates cutting-edge technology and algorithms to overcome challenges face by scientists in analyzing and visualizing data from all major NGS platforms.

GeneGlobe, a web-based portal, enables researchers to search and select gene- and pathway-specific solutions from approximately 25 million pre-designed and custom PCR assay kits, NGS assay panels and other products.

Related revenues also include royalties, milestone payments from co-development agreements with pharmaceutical companies, payments from technology licenses and patent sales, and custom services, such as whole genome amplification services, DNA sequencing, and non-cGMP DNA production on a contract basis.

Automation platforms and instruments

Our instrumentation systems, contributing approximately 12%-13% of net sales together with related services and contracts, automate the use of consumables into efficient workflows for a broad range of laboratory needs. QIAGEN platforms are designed to carry our customers from Sample to Insight - handling and preparation of biological samples, analysis using sequencing technologies, and interpretation that delivers valuable insights. These instruments enable laboratories to perform reliable and reproducible processes, including nucleic acid sample preparation, assay setup, target detection, and interpretation of genomic information. Often several of these instruments are integrated into end-to-end workflows.

Among the automation platforms that contribute to QIAGEN’s business:

QIASymphony is an easy-to-use modular system that has launched a new era of integrated workflow and laboratory automation, making molecular testing more efficient and helping to disseminate standardized, clinically proven molecular diagnostics. Our fully integrated **QIASymphony RGQ**, launched in 2010, includes three modules - **QIASymphony SP** for sample preparation, **QIASymphony AS** for assay setup, and our real-time PCR platform **Rotor-Gene Q**. The Rotor-Gene Q module, the world's first rotary real-time PCR cyclers system, makes sequences of DNA and RNA visible through amplification and quantifiable. In 2016, our installed base increased to more than 1,750 QIASymphony systems worldwide, more than triple the number at the end of 2011. The platform offers many features to enhance workflows, such as continuous loading, random access and the ability to process an almost unlimited range of sample types. QIASymphony has the broadest content menu in its category in Europe and other markets, and QIAGEN is developing more regulator-approved assays to add value for customers.

GeneReader NGS System, introduced in late 2015, is the first complete Sample to Insight next-generation sequencing (NGS) solution designed for any laboratory to deliver actionable results. This end-to-end platform provides a simpler, more cost-effective way for basic and translational research to take advantage of NGS technology and improve outcomes. The GeneReader workflow offers the flexibility of scalable batch sizes and continuous loading of multiple flow cells, and customers can create relevant reports using QIAGEN's proven gene panels and bioinformatics solutions. In 2016 we rolled out several expansions in the GeneReader system's capabilities, including use with non-invasive liquid biopsies in addition to tissue samples; sample and library preparation with either QIACube or QIASymphony SP as a front-end; Digital NGS technology for control of the analysis and reliable detection of extremely rare mutations; and integration with laboratory information management systems (LIMS).

Modaplex is a multimodal automation system integrating amplification, capillary electrophoresis and real-time qPCR quantification of multiple targets in a single reaction. This innovative platform allows up to 48 samples, including multiple targets and different types of assays, to run simultaneously in a single well.

QIACube robotic workstations provide highly versatile solutions for automated sample processing, with novel technologies for purification of DNA, RNA and proteins. Seamless integration of sample prep frees up the time of laboratory staff, enabling laboratories to increase productivity and achieve standardized results in analysis using PCR or NGS. The QIACube is available in a standard and high-throughput version.

EZ1 Advanced XL performs automated nucleic acid purification for many sample types in molecular diagnostics, human identity testing, forensics, biomedical research, and gene expression analysis.

QIAXcel replaces traditional slab-gel analysis, eliminating time-consuming nucleic acid separation methods in low- to high-throughput labs and offering unprecedented sensitivity and time-to-results for analysis of DNA fragments and RNA.

QIAscout, a small benchtop instrument that enables researchers to efficiently select and isolate viable single cells for analysis with NGS, PCR or other methods. QIAscout was launched in 2016.

PyroMark, a high-resolution detection platform with Pyrosequencing technology, enables real-time analysis and quantification of genetic mutations and DNA methylation patterns to identify variations, run multiplex analysis for genetic and pathogen detection, or conduct epigenetic research.

QIAgility is a compact benchtop instrument that enables rapid, high-precision PCR setup supporting almost all tube and plate formats, as well as Rotor-Discs for the Rotor-Gene Q.

ESEQuant portable, battery-operated instruments enable optical measurement for Point of Need molecular testing in healthcare and other applications, particularly in physician practices, emergency rooms, remote areas, and other settings with limited or delayed access to laboratories.

Customers

From the early days of the biotechnology revolution, QIAGEN believed that innovative technologies for the preparation of samples and the analysis of nucleic acids would play an increasingly important role in cutting-edge biology - and that insights extracted from DNA and RNA would be increasingly valuable in research, industry and healthcare.

With a growing portfolio of innovative products for molecular testing, we have built deep customer relationships across the life science value chain. Discoveries often surface in universities and research institutes and are published, then find resources for development by pharmaceutical and biotech companies, and finally move into widespread commercial use in healthcare and other areas of life. We serve the needs of four major customer classes:

- **Molecular Diagnostics** - healthcare providers engaged in patient care including hospitals, public health organizations, reference laboratories and physician practices
- **Applied Testing** - government or industry customers using molecular technologies in fields such as forensics, veterinary diagnostics and food safety testing

- **Pharma** - pharmaceutical and biotechnology companies using molecular testing to support drug discovery, translational medicine and clinical development efforts
- **Academia** - researchers exploring the secrets of life such as disease mechanisms and pathways, in some cases translating findings into drug targets or other products

Molecular Diagnostics

The ability of advanced diagnostic technologies to unlock molecular information for patients is changing the practice of medicine, creating a large and growing market for nucleic acid sample preparation, assay technologies and bioinformatics in clinical care. Dissemination of PCR and other amplification technologies has brought molecular diagnostics into routine use in healthcare around the world, and next-generation sequencing is rapidly disseminating, further transforming healthcare. Technologies for molecular diagnostics enable clinicians and labs to identify and profile microorganisms, cancer cells, bacteria and viruses by detecting their specific nucleic acid sequences or characterizing newly discovered genomic sequences related to diseases. Commercial applications are multiplying as researchers identify new biological markers for disease and develop novel technologies to decipher these diagnostic clues.

The molecular diagnostics market generates total sales estimated by industry experts at more than \$6 billion in 2016, including about \$3-4 billion potentially addressable with QIAGEN's product portfolio. Molecular diagnostics is the most dynamic segment of the global *in vitro* diagnostics market and is growing at a compound annual rate estimated in the high single-digits or low double-digits. Given the advantages of precise genetic information over traditional tests, QIAGEN expects the healthcare market to continue to provide significant growth opportunities.

In QIAGEN's robustly growing Molecular Diagnostics business we focus on three priorities for fighting disease:

Oncology - accurately diagnosing cancer, enabling prevention or early detection, and guiding selection of therapies with individualized molecular insights. QIAGEN offers a broad portfolio of companion diagnostic kits and panels to detect mutations of genes such as KRAS, EGFR, BRAF and others that influence the efficacy and safety of medicines. We also provide industry-leading tests used in screening women for human papillomavirus (HPV) to protect from cervical cancer.

Infectious diseases - detecting and differentiating a broad range of viral and bacterial infections, including diseases such as HIV, hepatitis and healthcare-associated infections. Use of molecular testing to differentiate among pathogens can be useful in guiding treatment, such as selection of antibiotic or antiviral therapies.

Immune monitoring - using advanced technologies that detect immune-system markers as a preventive strategy, such as screening patients for latent TB infection to guard against active TB disease, as well as for monitoring immune function, such as in transplantation patients.

QIAGEN offers one of the broadest portfolios of molecular technologies for healthcare. Success in Molecular Diagnostics depends on the ability to accurately analyze purified nucleic acid samples from sources such as blood, tissue, body fluids and stool, on automated systems that process these samples very reliably and efficiently, often handling hundreds of samples concurrently. Other key factors are the range of assays for diseases and biomarkers, convenience and ease of laboratory workflow, and reliability and standardization of lab procedures.

Our QuantiFERON-TB Gold and QuantiFERON-TB Gold Plus tests lead the industry in screening to support control of tuberculosis (TB), the largest killer of any infectious disease. The World Health Organization (WHO) estimates there were 10.4 million new active TB cases in 2015 and 1.8 million deaths, including 0.4 million deaths from TB in HIV-infected persons. An estimated one-third of the global population is infected with tuberculosis but with no symptoms of active disease, a condition known as latent TB infection (LTBI). Up to 10% of patients with LTBI will eventually develop active, contagious TB disease during their lifetime. Particularly vulnerable groups include immunocompromised patients or those receiving immunosuppressive drugs. The QuantiFERON-TB tests detect latent TB infection more accurately, enabling decisions to initiate preventative therapy in order to avoid progression to active TB. The potential global market for latent TB infection testing is estimated at up to \$1 billion.

QIAGEN also is the global leader in screening technologies for HPV, a viral infection that is the primary cause of cervical cancer, which kills about 270,000 women a year. Our "gold standard" *digene* HC2 HPV Test and our *careHPV* Test for use in low-resource regions lead the market in HPV screening around the world. In the United States, QIAGEN remains a market leader although vigorous price competition has reduced that business to about 3% of our total sales. In Europe and other regions, we are a leader in a growing HPV market based on clinical evidence and policy initiatives for fighting cervical cancer. In 2016, we launched a follow-up diagnostic test for women at risk of developing cervical cancer. The CE-marked QIAure Methylation Test stratifies cervical cancer risk by detecting and measuring DNA methylation of two genes.

QIAGEN's oncology test portfolio includes a broad range of Personalized Healthcare technologies and biomarkers, including regulator-approved companion diagnostics for oncogenes such as KRAS and EGFR, as well as comprehensive gene panels for research applications in next-generation sequencing. In 2016, we launched the new *ipsogen* CALR RGQ PCR Kit in Europe, a

unique CE-IVD marked assay for use in blood cancers known as myeloproliferative neoplasms (MPN). The test is highly synergistic with our European market-leading *ipsogen* JAK2 RQ PCR Kit for use in blood cancers.

As the world's leading independent developer of molecular technologies, QIAGEN is the preferred partner for pharmaceutical and biotech companies to develop and commercialize companion diagnostics paired with targeted drugs, and the only company offering PCR and NGS technology. In 2016, we initiated additional co-development projects with existing and new partners and surpassed a milestone of 20 master collaboration agreements, each enabling multiple projects. These partnerships add to our pipeline of companion diagnostics to be commercialized in the future, following clinical trials and regulatory approvals along with the drugs.

QIAGEN also offers an extensive range of kits for diagnosing infectious diseases, and we are expanding this portfolio by seeking regulatory approvals of new tests in additional markets.

A key element of our expansion in Molecular Diagnostics is enabling laboratories to efficiently use our assay technologies on QIAGEN automation platforms. Our flagship PCR platform is QIASymphony, based on its flexibility and unique capabilities. We offer broad portfolios of companion diagnostics and infectious disease tests running on the QIASymphony system. We also are developing companion diagnostics for our GeneReader NGS System and Modaplex platform. Nucleic acid samples purified on our instruments are ready for use in the demanding and sensitive downstream assays performed in molecular diagnostic applications. We market assays directly via QIAGEN sales channels, and selected assays through major diagnostic partners or other companies to broaden the distribution of our products.

Applied Testing

Use of molecular technologies is expanding in more areas of life as industry and government organizations apply standardized Sample to Insight solutions to diverse needs. Applied Testing is our term for applications outside of human healthcare and research - such as human identification and forensics, food and environmental safety, and veterinary testing. The value of genetic "fingerprinting" has been shown for criminal investigations or clarification of paternity or ancestry, public policy compliance for food safety and genetically modified organisms (GMOs), and containment of diseases in commercial livestock. Molecular testing can be performed by well-trained researchers in fully equipped laboratories, and increasingly also by less-trained personnel provided with easy-to-use, reproducible and standardized methods for Point of Need testing.

QIAGEN has developed relationships with molecular testing laboratories and continually innovates across these diverse fields. In 2016, we launched automated high-throughput solutions to serve the growing need for DNA fingerprinting of reference samples for law enforcement databases. QIAGEN also entered a collaboration with the International Commission on Missing Persons to develop and validate a complete NGS solution, including the GeneReader NGS System, to enhance the ability to identify missing persons. Also, manufacturing of our *investigator* kits for forensic and human identity testing met the newly published international standards for forensics. In environmental research, QIAGEN's solutions for metagenomics gained visibility in 2016 and are increasingly used in studies of microbiomes.

Pharma

QIAGEN has deep relationships with pharmaceutical and biotechnology companies. Drug discovery and translational research efforts increasingly employ genomic information, both to guide research in diseases and to differentiate patient populations most likely to respond to particular therapies. We estimate that about half of QIAGEN sales in this customer class support research, while the other half supports clinical development, including stratification of patient populations based on genetic information. QIAGEN's bioinformatics solutions also are widely used to guide pharmaceutical research.

As new drugs are commercialized, testing technologies developed in parallel with those therapies can move from Pharma R&D into the healthcare market as companion diagnostics, which QIAGEN markets in our Molecular Diagnostics customer class. Healthcare providers use companion diagnostics to test for specific genetic biomarkers that measure the safety and efficacy profiles of drugs in individual patients, achieving the best possible outcomes and avoiding unnecessary treatments. A wave of newly discovered biomarkers and companion diagnostics has begun to transform the treatment of cancer and other diseases.

In addition to the broad portfolio of molecular technologies, QIAGEN brings to the Pharma market a full infrastructure for co-development programs, intellectual property on platforms and content, extensive regulatory experience, global marketing reach, and independence as a company focusing exclusively on these types of technologies.

Academia

QIAGEN provides Sample to Insight solutions to leading research institutions around the world. While many academic laboratories continue to use manual, labor-intensive methods for nucleic acid separation and purification, QIAGEN has focused on enabling labs to replace time-consuming traditional methods with reliable, fast, highly reproducible, and high-quality nucleic acid extraction and purification technologies. QIAGEN often partners with leading institutions in research projects.

As academic institutions increasingly embrace translational research, bridging from discoveries to practical applications in

medicine, our relationships in Academia also support our presence in the Molecular Diagnostics and Pharma customer classes. Research in university settings often helps in the development of specific technologies for targeted biomolecules, and academic research also can result in scientific publications that validate the usefulness of QIAGEN technologies for specific applications.

Global Presence by Category of Activity and Geographic Market

Product Category Information

Net sales for the product categories are attributed based on those revenues related to sample and assay products and similarly related revenues including bioinformatics solutions, and revenues derived from instrumentation sales.

(in thousands)	2016	2015	2014
Net Sales			
Consumables and related revenues	\$ 1,166,131	\$ 1,114,580	\$ 1,172,728
Instrumentation	171,860	166,406	172,049
Total	<u>\$ 1,337,991</u>	<u>\$ 1,280,986</u>	<u>\$ 1,344,777</u>

Geographical Information

QIAGEN currently markets products in more than 130 countries. The following table shows total revenue by geographic market for the past three years (net sales are attributed to countries based on the location of the customer, as certain subsidiaries have international distribution):

(in thousands)	2016	2015	2014
Net Sales			
Americas:			
United States	\$ 555,676	\$ 525,532	\$ 543,877
Other Americas	71,797	79,578	75,974
Total Americas	<u>627,473</u>	<u>605,110</u>	<u>619,851</u>
Europe, Middle East and Africa	428,055	409,955	451,092
Asia Pacific and Rest of World	282,463	265,921	273,834
Total	<u>\$ 1,337,991</u>	<u>\$ 1,280,986</u>	<u>\$ 1,344,777</u>

QIAGEN has built an increasing presence in key emerging markets as a growth strategy. In 2016, the top seven emerging markets - Brazil, Russia, India, China, South Korea, Mexico and Turkey - contributed approximately 16% of net sales.

Growth Drivers and Key Catalysts

We believe the addressable global market totals approximately \$8 billion for QIAGEN's portfolio of molecular testing products for customers across the continuum of life science research and molecular diagnostics. Driving the industry's long-term growth are ongoing breakthroughs and insights into molecular biology, the emergence of next-generation sequencing, bioinformatics to analyze and interpret molecular information, use of diagnostics to improve healthcare quality and reduce costs, and revenue streams made possible through consumable products.

We have grown substantially with a flexible strategy to accelerate innovation and growth by developing innovative new platforms, consumables and bioinformatics products, partnering with researchers and Pharma companies, and acquiring companies or technologies to complement our portfolio.

We are building momentum by continuing to focus on strategic growth drivers and key catalysts:

1. **Differentiated Core technologies:** Our growing portfolio of Sample to Insight solutions leverages QIAGEN's recognized global leadership in technologies to extract and isolate DNA and RNA from biological samples. In 2016, we expanded our sample technologies with innovative workflows to enable “liquid biopsies” and cutting-edge research, especially with next-generation sequencing.
2. **QuantiFERON-TB:** As the modern standard for detecting latent tuberculosis infection, QuantiFERON-TB Gold aids TB control by screening subpopulations of at-risk patients. In 2016, our fourth-generation QuantiFERON-TB Gold Plus, which provides additional insights for patients at greatest risk, gained momentum in about 60 markets worldwide, and we submitted it for FDA approval.

3. **Next-generation sequencing:** Our strategic initiative to drive NGS adoption in clinical research and diagnostics gained momentum in 2016 with growing adoption of our innovative GeneReader NGS System, providing a simpler, more cost-effective way for laboratories to take advantage of NGS technology and improve outcomes. Our broad portfolio of “universal” solutions for NGS users also is growing rapidly.
4. **Personalized Healthcare:** We continue to develop and introduce companion diagnostics to guide the treatment of cancer and other diseases, as well as innovative sample technologies to support the care of patients. QIAGEN is a leading partner for pharmaceutical companies in co-developing tests paired with drugs for personalized medicine.
5. **QIASymphony:** We are driving global adoption of the QIASymphony automation platform, surpassing our target of 1,750 cumulative placements in 2016, and expanding the content menu of test kits for the platform. Growing QIASymphony placements and the broad menu of innovative consumables, together, drive sales growth.
6. **Bioinformatics:** Our industry-leading bioinformatics portfolio is growing rapidly as users of next-generation sequencing seek solutions for handling huge amounts of genomic data. In 2016, we expanded our content-enabled software solutions for basic and clinical research in oncology and rare inherited diseases, as well as metagenomics and human identification. We continue to integrate bioinformatics with QIAGEN products to create Sample to Insight workflows.

Research and Development

We are committed to expanding our global leadership in Sample to Insight solutions for molecular testing in healthcare and the life sciences. Our strategy for managing innovation focuses on addressing the most significant unmet medical and scientific needs. We target our resources to develop promising technologies for use by our customers in Molecular Diagnostics, Applied Testing, Pharma and Academia - and to meet the needs of clinicians and scientists in key geographic markets.

Innovation at QIAGEN follows parallel paths:

- Creating new systems for automation of workflows - platforms for laboratories, hospitals and other users of these novel molecular technologies.
- Expanding our broad portfolio of novel “content” - including assays to detect and measure biomarkers for disease or genetic identification.
- Integrating bioinformatics with the testing process - software and cloud-based resources to interpret and transform raw molecular data into useful insights.

As a percentage of sales, our research and development investments are among the highest in our industry. Almost 1,000 employees in research and development work in QIAGEN centers of excellence on three continents. Our comprehensive intellectual property portfolio encompasses approximately 2,200 granted patents and nearly 800 pending applications.

Strengthening our leadership in the automation of laboratories is a key to driving dissemination of molecular testing in healthcare and other fields, as well as generating increased demand for our consumable products. We continue to extend our modular QIASymphony platform, enabling hospitals and other customers to adopt or greatly expand their use of molecular diagnostics. QIAGEN also is rolling out a range of performance enhancements and expansions for our GeneReader NGS System to add value by addressing new applications and improving output and connectivity within labs.

We are commercializing a deep pipeline of assays for preventive screening and diagnostic profiling of diseases, detection of biomarkers to guide personalized medicine in cancer and other diseases, and a broad range of other targets. Our development program generates commercial launches of tests that add value to our QIASymphony RGQ and GeneReader NGS platforms. In 2016, we launched a comprehensive portfolio of QIAseq panels with Digital NGS technology enabling unbiased, accurate quantification of DNA, RNA and miRNA, compatible any next-generation sequencing platform. In Applied Testing, we continue to develop new content for human identification, food safety and veterinary diagnostics. We are also expanding our extensive portfolio of products for disease pathway research by Pharma and Academic customers. In addition, we are developing assays for specific applications in key markets such as China and Japan.

Our bioinformatics teams are developing new software solutions and adding proprietary cloud-based content to support the latest research and clinical trends in molecular testing, especially the interpretation of large volumes of data from next-generation sequencing. In addition, we are integrating these digital technologies with instruments and molecular content to provide our customers seamless Sample to Insight workflows.

Sales and Marketing

We market our products in more than 130 countries, mainly through subsidiaries in markets that we believe have the greatest sales potential in the Americas, Europe, Australia and Asia. Experienced marketing and sales staff, many of them scientists with academic degrees in molecular biology or related areas, sell our products and provide direct support to customers. Key accounts are overseen by business managers to ensure that we serve customers’ commercial needs, such as procurement processes,

financing, data on costs and value of our systems, and collaborative relationships. In many markets, we have specialized independent distributors and importers.

Our marketing strategy focuses on providing differentiated, high-quality products across the value chain from Sample to Insight, when possible, integrating components into end-to-end solutions, and enhancing relationships with commitment to technical excellence and customer service. Our “omni-channel” approach seeks to engage customers through their preferred channels - online, by phone, in person, etc. – and to optimize investment in different customer types.

Digital channels - including our website (www.qiagen.com), product-specific sites and social media. QIAGEN has initiated actions to drive the growth of digital commercialization channels. Our website makes ordering easy with a fully searchable online product catalog and ordering. The site can be viewed in Chinese and Japanese, and also contains selected information in French, German and Korean. Our eCommerce team works with clients to provide automated processes supporting a wide variety of electronic transactions and all major eProcurement systems. Information contained on our website, or accessed through it, is not part of this Annual Report.

Our GeneGlobe Genes & Pathways web portal (www.geneglobe.com) is a valuable outreach to scientists in Pharma and Academia, enabling researchers to search and order from approximately 25 million pre-designed and custom PCR assay kits, NGS assay panels and other products. We have integrated GeneGlobe with our bioinformatics solutions, linking biological interpretation with ordering of relevant assays to accelerate research.

QIAGEN uses a range of tools to provide customers with direct access to technical support, inform them of new product offerings, and enhance our reputation for technical excellence, high-quality products and commitment to service. For example, our technical service hotline allows existing or potential customers to discuss a wide range of questions about our products and molecular biology procedures, online or via phone, with Ph.D. and M.Sc. scientists at QIAGEN. Frequent communication with customers enables us to identify market needs, learn of new developments and opportunities, and respond with new products.

We also distribute publications, including our catalog, to existing and potential customers worldwide, providing new product information, updates, and articles about existing and new applications. In addition, we hold numerous scientific seminars at clinical, academic and industrial research institutes worldwide. We conduct direct marketing campaigns to announce new products and special promotions, and we offer personalized electronic newsletters highlighting molecular biology applications.

For laboratories that frequently rely on our consumables, the QIAstock program maintains inventory onsite to keep up with their requirements. QIAGEN representatives make regular visits to replenish the stock and help with other needs, and we are automating this process with digital technologies. Easy-to-use online ordering, inventory monitoring and customer-driven changes make QIAstock an efficient system for providing ready access to our products for the hundreds of customers worldwide who use this program.

Seasonality

Our business does not experience significant, predictable seasonality. Historically, a significant portion of our sales have been to researchers, universities, government laboratories and private foundations whose funding is dependent upon grants from government agencies, such as the National Institutes of Health and similar bodies. To the extent that our customers experience increases, decreases or delays in funding arrangements and budget approvals, and to the extent that any of our customers' activities are slowed, such as during times of higher unemployment, vacation periods or delays in the approval of government budgets, we may experience fluctuations in sales volumes during the year or delays from one period to the next in the recognition of sales.

Intellectual Property, Proprietary Rights and Licenses

We have made and expect to continue to make investments in intellectual property. In 2016, our purchases of intangible assets totaled \$19.4 million. While we do not depend solely on any individual patent or technology, we are significantly dependent in the aggregate on technology that we own or license. Therefore, we consider protection of proprietary technologies and products one of the major keys to our business success. We rely on a combination of patents, licenses and trademarks to establish and protect proprietary rights. As of December 31, 2016, we owned 349 issued patents in the United States, 241 issued patents in Germany and 1,613 issued patents in other major industrialized countries. We had 776 pending patent applications. Our policy is to file patent applications in Western Europe, the United States and Japan. U.S. patents have a term of 17 years from the date of issue (for patents issued from applications submitted prior to June 8, 1995), or 20 years from the date of filing (in the case of patents issued from applications submitted on or after June 8, 1995). Patents in most other countries have a term of 20 years from the date of filing the patent application. We intend to aggressively prosecute and enforce patents and to otherwise protect our proprietary technologies. We also rely on trade secrets, know-how, continuing technological innovation and licensing opportunities to develop and maintain our competitive position.

Our practice is to require employees, consultants, outside scientific collaborators, sponsored researchers and other advisers to execute confidentiality agreements upon commencement of their relationships with us. These agreements provide that all

confidential information developed by or made known to the individual during the course of the relationship is to be kept confidential and not disclosed to third parties, subject to a right to publish certain information in scientific literature in certain circumstances and to other specific exceptions. In the case of our employees, the agreements provide that all inventions conceived by individuals in the course of their employment will be our exclusive property.

See “Risk Factors” included in Item 3 above for details regarding risks related to our reliance on patents and proprietary rights.

Competition

In the Academic and Pharma markets, we believe our primary competition in sample technology products involves traditional separation and purification methods, such as phenol extraction, cesium chloride density gradient centrifugation, and precipitation. These methods utilize widely available reagents and other chemicals supplied by companies such as Merck KGaA (MilliporeSigma business). and Roche Diagnostics GmbH (Applied Sciences Division). We compete with these methods through innovative technologies and products, offering a comprehensive solution for nucleic acid collection, pre-treatment, separation and purification needs and providing significant advantages in speed, reliability, convenience, reproducibility and ease of use.

We also experience competition in various markets from other companies providing sample preparation products in kit form and assay solutions. These competitors include, but are not limited to, Promega Corp., EMD Millipore or Merck Millipore, and Macherey-Nagel GmbH for nucleic acid separation and purification; Thermo Fisher and Promega Corp. for assay solutions and for transfection reagents; and Sigma-Aldrich Corp. and Thermo Fisher for protein fractionation products. We believe our proprietary technologies and products offer significant advantages over competitors' products with regard to purity, speed, reliability and ease-of-use.

Some of our other products within our molecular diagnostics customer class, such as tests for Chlamydia, Gonorrhea, hepatitis B virus, herpes simplex virus and CMV, compete against existing screening, monitoring and diagnostic technologies, including tissue culture and antigen-based diagnostic methodologies. Our competitors for gene-based diagnostic probes include Roche Diagnostics, Abbott, Siemens, Cepheid and Hologic. We believe the primary competitive factors in the market for gene-based probe diagnostics and other screening devices are clinical validation, performance and reliability, ease of use, standardization, cost, proprietary position, competitors' market shares, access to distribution channels, regulatory approvals and reimbursement.

We do not believe our competitors typically have the same comprehensive approach to sample to insight solutions as we do or the ability to provide the broad range of technologies and depth of products and services that we offer. With our complete range of manual and fully automated solutions, we believe we offer the value of standardization of procedures and, therefore, more reliable results. We also believe our integrated strategic approach gives us a competitive advantage. The quality of sample technologies—an area in which we have a unique market and leadership position—is a key prerequisite for reliable molecular assay solutions, which increasingly are being applied in emerging markets such as Molecular Diagnostics and Applied Testing.

Current and potential competitors may be in the process of seeking FDA or foreign regulatory approvals for their respective products. Our continued future success will depend in large part on our ability to maintain our technological advantage over competing products, expand our market presence and preserve customer loyalty. There can be no assurance that we will be able to compete effectively in the future or that development by others will not render our technologies or products non-competitive.

Suppliers

As part of our quality assessment procedures, we periodically evaluate the performance of our raw material and component suppliers, potential new alternative sources of such materials and components, and the risks and benefits of reliance on our existing suppliers. We buy materials for our products from many suppliers, and are not dependent on any one supplier or group of suppliers for our business as a whole. Raw materials generally include chemicals, raw separation media, biologics, plastics and packaging. Raw materials are generally readily available at competitive, stable prices from a number of suppliers. Certain raw materials are produced under our specifications, so we closely monitor stock levels to maintain adequate supplies. We believe we maintain inventories at a sufficient level to ensure reasonable customer service levels and to guard against normal volatility in availability.

Government Regulations

We are subject to a variety of laws and regulations in the European Union, the United States and other countries. The level and scope of the regulation varies depending on the country or defined economic region, but may include, among other things, the research, development, testing, clinical trials, manufacture, storage, recordkeeping, approval, labeling, promotion and commercial sales and distribution, of many of our products.

European Union Regulations

In the European Union, *in vitro* diagnostic medical devices (IVDs) are regulated under EU-Directive 98/79/EC (IVD Directive) and corresponding national provisions. The IVD Directive requires that medical devices meet the essential requirements set out

in an annex of the directive. These requirements include the safety and efficacy of the devices. According to the IVD Directive, the Member States presume compliance with these essential requirements in respect of devices which are in conformity with the relevant national standards transposing the harmonized standards of which the reference numbers have been published in the Official Journal of the European Communities. These harmonized standards include ISO 13485:2003, the quality standard for medical device manufacturers.

IVD medical devices, other than devices for performance evaluation, must bear the CE marking of conformity when they are placed on the market. The CE mark is a declaration by the manufacturer that the product meets all the appropriate provisions of the relevant legislation implementing the relevant European Directive. As a general rule, the manufacturer must follow the procedure of the EC Declaration of conformity to obtain this CE marking.

Each European country must adopt its own laws, regulations and administrative provisions necessary to comply with the IVD Directive. Member States may not create any obstacle to the placing on the market or the putting into service within their territory of devices bearing the CE marking according to the conformity assessment procedures. On September 26, 2012, the European Commission (EC) adopted a proposal for new EU regulations for medical devices and IVDs that when finalized will impose additional regulatory requirements on IVDs used in the EU. These new regulations are targeted to be signed into law in early 2017 with a 5 year implementation requirement. Once implemented, the entire EU IVD industry will have to comply with the new requirements.

Other Country Specific Requirements

In many countries outside of the United States and the EU, coverage, pricing and reimbursement approvals are also required. Additionally, many of the major markets are adopting regulations and requirements similar to U.S. Food and Drug Administration (FDA) which require additional submission activities and management of country specific regulatory requirements.

We are also required to maintain accurate information and control over sales and distributors' activities that may fall within the purview of the Foreign Corrupt Practices Act, its books and records provisions and its anti-bribery provisions.

U.S. Regulations

In the United States, *in vitro* diagnostic kits are subject to regulation by the FDA as medical devices and must be cleared or approved before they can be marketed. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending NDAs, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution. In addition, some of our test kits are sold for research use only in the United States. We do not promote these tests for clinical diagnostic use, and they are labeled "For Research Use Only," or RUO, as required by the FDA.

In Vitro Diagnostics

The FDA regulates the sale or distribution of medical devices, including *in vitro* diagnostic test kits and some Lab Developed Tests (LDTs). The information that must be submitted to the FDA in order to obtain clearance or approval to market a new medical device varies depending on how the medical device is classified by the FDA. Medical devices are classified into one of three classes on the basis of the controls deemed by the FDA to be necessary to reasonably ensure their safety and effectiveness. Class I devices are subject to general controls, including labeling, pre-market notification and adherence to the FDA's quality system regulations, which are device-specific good manufacturing practices. Class II devices are subject to general controls and special controls, including performance standards and post-market surveillance. Class III devices are subject to most of the previously identified requirements as well as to pre-market approval. All Class I devices are exempt from premarket review; most Class II devices require 510(k) clearance, and all Class III devices must receive premarket approval before they can be sold in the United States. The payment of a fee, that is subject to frequent adjustment, to the FDA is usually required when a 510(k) notice or premarket approval application is submitted.

510(k) Premarket Notification. A 510(k) notification requires the sponsor to demonstrate that a medical device is substantially equivalent to another marketed device, termed a "predicate device", that is legally marketed in the United States and for which a premarket approval application (PMA) was not required. A device is substantially equivalent to a predicate device if it has the same intended use and technological characteristics as the predicate; or has the same intended use but different technological characteristics, where the information submitted to the FDA does not raise new questions of safety and effectiveness and demonstrates that the device is at least as safe and effective as the legally marketed device.

The FDA generally issues a decision letter within 90 days of receipt of the 510(k) if it has no additional questions or sends a first action letter requesting additional information within 75 days. Most 510(k)s do not require clinical data for clearance, but a minority will. Requests for additional data, including clinical data, will increase the time necessary to review the notice. If the FDA believes that the device is not substantially equivalent to a predicate device, it will issue a "Not Substantially Equivalent" letter and designate the device as a Class III device, which will require the submission and approval of a PMA before the new

device may be marketed. Under certain circumstances, the sponsor may petition the FDA to make a risk-based determination of the new device and reclassify the new device as a Class I or Class II device. The FDA continues to reevaluate the 510(k) review process, and we cannot predict what if any changes will occur.

Premarket Approval. The PMA process is more complex, costly and time consuming than the 510(k) process. A PMA must be supported by more detailed and comprehensive scientific evidence, including clinical data, to demonstrate the safety and efficacy of the medical device for its intended purpose. If the device is determined to present a “significant risk,” the sponsor may not begin a clinical trial until it submits an investigational device exemption (IDE) to the FDA and obtains approval to begin the trial.

After the PMA is submitted, the FDA has 45 days to make a threshold determination that the PMA is sufficiently complete to permit a substantive review. If the PMA is complete, the FDA will file the PMA. The FDA is subject to a performance goal review time for a PMA that is 180 days from the date of filing, although in practice this review time is longer. Questions from the FDA, requests for additional data and referrals to advisory committees may delay the process considerably. The total process may take several years and there is no guarantee that the PMA will ever be approved. Even if approved, the FDA may limit the indications for which the device may be marketed. The FDA may also request additional clinical data as a condition of approval or after the PMA is approved. Any changes to the medical device may require a supplemental PMA to be submitted and approved before changed medical device may be marketed.

Any products sold by us pursuant to FDA clearances or approvals will be subject to pervasive and continuing regulation by the FDA, including record keeping requirements, reporting of adverse experiences with the use of the device and restrictions on the advertising and promotion of our products. Device manufacturers are required to register their establishments and list their devices with the FDA and are subject to periodic inspections by the FDA and certain state agencies. Noncompliance with applicable FDA requirements can result in, among other things, warning letters, fines, injunctions, civil penalties, recalls or seizures of products, total or partial suspension of production, refusal of the FDA to grant 510(k) clearance or PMA approval for new devices, withdrawal of 510(k) clearances and/or PMA approvals and criminal prosecution.

Regulation of Companion Diagnostic Devices

If a sponsor or the FDA believes that a diagnostic test is essential for the safe and effective use of a corresponding therapeutic product, the sponsor of the therapeutic product will typically work with a collaborator to develop an in vitro companion diagnostic device, or IVD. IVDs are regulated by the FDA as medical devices. The FDA issued a final guidance document in 2014, entitled “In Vitro Companion Diagnostic Devices” that is intended to assist companies developing in vitro companion diagnostic devices and companies developing therapeutic products that depend on the use of a specific in vitro companion diagnostic for the safe and effective use of the product. The FDA defined an IVD companion diagnostic device as a device that provides information that is essential for the safe and effective use of a corresponding therapeutic product. The FDA expects that the therapeutic sponsor will address the need for an approved or cleared IVD companion diagnostic device in its therapeutic product development plan and that, in most cases, the therapeutic product and its corresponding IVD companion diagnostic will be developed contemporaneously.

It also issued a draft guidance on July 15, 2016, entitled, “Principles for Codevelopment of an In Vitro Companion Diagnostic Device with a Therapeutic Product” to serve as a practical guide to assist therapeutic product sponsors and IVD sponsors in developing a therapeutic product and an accompanying IVD companion diagnostic.

The FDA indicated that it will apply a risk-based approach to determine the regulatory pathway for IVD companion diagnostic devices, as it does with all medical devices. This means that the regulatory pathway will depend on the level of risk to patients, based on the intended use of the IVD companion diagnostic device and the controls necessary to provide a reasonable assurance of safety and effectiveness. The two primary types of marketing pathways for medical devices are clearance of a premarket notification under Section 510(k) of the Federal Food, Drug, and Cosmetic Act, or 510(k), and approval of a premarket approval application, or PMA. We expect that any IVD companion diagnostic device developed for use with our drug candidates will utilize the PMA pathway and that a clinical trial performed under an investigational device exemption, or IDE, will have to be completed before the PMA may be submitted.

The FDA expects that the therapeutic sponsor will address the need for an IVD companion diagnostic device in its therapeutic product development plan and that, in most cases, the therapeutic product and its corresponding IVD companion diagnostic device will be developed contemporaneously. If the companion diagnostic test will be used to make critical treatment decisions such as patient selection, treatment assignment, or treatment arm, it will likely be considered a significant risk device for which a clinical trial will be required.

The sponsor of the IVD companion diagnostic device will be required to comply with the FDA’s IDE requirements that apply to clinical trials of significant risk devices. If the diagnostic test and the therapeutic drug are studied together to support their respective approvals, the clinical trial must meet both the IDE and IND requirements.

PMA's must be supported by valid scientific evidence, which typically requires extensive data, including technical, preclinical, clinical and manufacturing data, to demonstrate to the FDA's satisfaction the safety and effectiveness of the device. For diagnostic tests, a PMA typically includes data regarding analytical and clinical validation studies. As part of its review of the PMA, the FDA will conduct a pre-approval inspection of the manufacturing facility or facilities to ensure compliance with the Quality System Regulation, or QSR, which requires manufacturers to follow design, testing, control, documentation and other quality assurance procedures. FDA review of an initial PMA may require several years to complete.

If the FDA evaluations of both the PMA and the manufacturing facilities are favorable, the FDA will either issue an approval order or an approvable letter, which usually contains a number of conditions that must be met in order to secure the final approval of the PMA. If the FDA's evaluation of the PMA or manufacturing facilities is not favorable, the FDA will send the applicant a not approvable letter or an order denying approval. A not approvable letter will outline the deficiencies in the application and, where practical, will identify what is necessary to make the PMA approvable. The FDA may also determine that additional clinical trials are necessary, in which case the PMA approval may be delayed for several months or years while the trials are conducted and then the data submitted in an amendment to the PMA. Once granted, PMA approval may be withdrawn by the FDA if compliance with post approval requirements, conditions of approval or other regulatory standards is not maintained or problems are identified following initial marketing.

After approval, the use of an IVD companion diagnostic device with a therapeutic product will be stipulated in the instructions for use in the labeling of both the diagnostic device and the corresponding therapeutic product. In addition, a diagnostic test that was approved through the PMA process or one that was cleared through the 510(k) process and placed on the market will be subject to many of the same regulatory requirements that apply to approved drugs. The FDA has approved a number of drug/diagnostic device companions in accordance with the Guidance.

In September 2013, the FDA issued its final rule on the Unique Device Identifier. This rule now requires an additional registered identifier, including a special barcode, on all FDA regulated medical devices. The rule is implemented in phases with the first deadline of September 24, 2014 being established for all Class III medical devices. For QIAGEN, this impacted the *hc2*, *QuantiFERON*, and *therascreen* products. We established a task force to ensure that the deadline was met but this will place additional administrative and regulatory burden on us related to the annual reporting of compliance of these products to the new regulation. Class II and Class I products are required to have this same labeling as of September 24, 2016 and 2018, respectively. QIAGEN was fully compliant with the new rule by the September 2014 and 2016 deadlines and we continue to work to ensure that we will be able to meet the remaining deadlines. The new rule will also require additional compliance oversight now that it has been implemented. The requirements are now required to be confirmed as part of our annual reporting and PMA submissions. They are also assessed during site inspections by the U.S. FDA.

Some of our products are sold for research purposes in the U.S., and labeled "For Research Use Only" (RUO) or "for molecular biology applications." In November 2013, the FDA issued a final Guidance for Industry and Food and Drug Administration Staff entitled, "Distribution of In Vitro Diagnostic Products Labeled for Research Use Only or Investigational Use Only." In the Guidance, RUO refers to devices that are in the laboratory phase of development, and investigational use only, or IUO, refers to devices that are in the product testing phase of development. These types of devices are exempt from most regulatory controls. Because we do not promote our RUOs for clinical diagnostic use or provide technical assistance to clinical laboratories with respect to these tests, we believe that these tests are exempt from FDA's premarket review and other requirements. If the FDA were to disagree with our designation of any of these products, we could be forced to stop selling the product until we obtain appropriate regulatory clearance or approval. Further, it is possible that some of our RUOs may be used by some customers without our knowledge in their LDTs, which they develop, validate and promote for clinical use. However, as previously noted, we do not promote these products for use in LDTs or assist in the development of the LDTs for clinical diagnostic use.

On October 3, 2014, the FDA published notices in the Federal Register formally announcing their release and the beginning of a 120-day public comment period, which ended on February 2, 2015, for the Draft Guidance for Industry, Food and Drug Administration Staff, and Clinical Laboratories: Framework for Regulatory Oversight of Laboratory Developed Tests (LDTs), and Docket No. FDA-2011-D-0357 for Draft Guidance for Industry, Food and Drug Administration Staff, and Clinical Laboratories: FDA Notification and Medical Device Reporting for Laboratory Developed Tests (LDTs). These draft Guidances were withdrawn in January 2017, and replaced by an informal non-enforceable discussion paper reflecting some of the feedback that it received from QIAGEN and other companies and industry groups. It is not possible to precisely assess the potential impact of the discussion paper on the issuance of any new draft Guidance or regulation. QIAGEN has an executive task force that is monitoring and participating in the draft process to insure the earliest possible awareness of new developments in this area.

HIPAA and Other Privacy and Security Laws

Numerous privacy and data security laws apply to personal information, including health information. These laws vary in their application. For example, the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act, and their implementing regulations (HIPAA), regulate the uses,

disclosures and security of identifiable health information (protected health information or PHI) in the hands of certain health care providers, health plans or health care clearing houses (covered entities). HIPAA regulates and limits covered entities' uses and disclosures of PHI and requires the implementation of administrative, physical and technical safeguards to keep PHI secure. HIPAA also applies to organizations that create, receive, maintain or transmit PHI to provide services to or for or on behalf of covered entities (business associates). Business associates and certain of their subcontractors are required to comply with certain privacy and all of the security standards of HIPAA. Business associates and covered entities must also comply with breach notification standards established by HIPAA. The HIPAA breach notification standards require covered entities to notify affected individuals, the government, and in some cases, local and national media in the event of a breach of PHI that has not been secured by encryption. The breach notification standards require business associates to notify covered entity customers of their own breaches of unsecured PHI so that the relevant covered entity may make required notifications. If we were to act as a HIPAA covered entity or business associate, we would be subject to these obligations.

Almost all states have adopted data breach notification laws relating to the "personal information" of its residents. Personal information typically includes an individual's name or initials coupled with social security, financial account, debit, credit or state-issued identification number or other information that could lead to identity theft. There is significant variability under these laws, but most require notification to affected individuals (and some require notification to the government) in the event of breach. Other laws of some states require that we comply with data security obligations. These laws may apply to us when we receive or maintain personal information regarding individuals, including our employees.

The Genetic Information Nondiscrimination Act of 2008, also referred to as GINA, is a federal law that protects individuals from discrimination in the health insurance and employment contexts because of DNA characteristics that may affect their health. GINA prohibits covered employers from requesting, obtaining, or using employees' genetic information (subject to limited exceptions), and prohibits covered health insurers from requesting genetic information or using any such information they may already have for purposes of making eligibility, premium, or coverage-related decisions.

Many states have also adopted genetic testing and privacy laws. These laws typically require a specific, written consent for genetic testing as well as consent for the disclosure of genetic test results and otherwise limit uses and disclosures of genetic testing results. A few states have adopted laws that give their residents property rights in their genetic information. Most of our institutional and physician customers are covered entities under HIPAA and must obtain proper authorization or de-identify information so that we may provide services. When PHI is de-identified in accordance with HIPAA or when the disclosure of PHI is authorized by a patient, HIPAA does not impose any compliance obligations on the recipient, but our use and disclosure of the information may be limited by contract or the terms of the authorization.

We are subject to enforcement by state attorneys general who have authority to enforce state data privacy or security laws. Accordingly, we maintain an active privacy and data security program designed to address applicable regulatory compliance requirements.

Privacy and data security laws, including those relating to health information, are complex, overlapping and rapidly evolving. As our activities evolve and expand, additional laws may be implicated, for example, there are non-U.S. privacy laws that impose restrictions on the transfer, access, use, and disclosure of health and other personal information. All of these laws impact our business either directly or indirectly. Our failure to comply with applicable privacy or security laws or significant changes in these laws could significantly impact our business and future business plans. For example, we may be subject to regulatory action or lawsuits in the event we fail to comply with applicable privacy laws. We may face significant liability in the event any of the personal information we maintain is lost or otherwise subject to misuse or other wrongful use, access or disclosure.

Compliance with Fraud and Abuse Laws

We have to comply with various U.S. federal and state laws, rules and regulations pertaining to healthcare fraud and abuse, including anti-kickback laws and physician self-referral laws, rules and regulations. Violations of the fraud and abuse laws are punishable by criminal and civil sanctions, including, in some instances, exclusion from participation in federal and state healthcare programs, including Medicare and Medicaid.

Anti-Kickback Statute

The federal Anti-Kickback Statute prohibits persons from knowingly or willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce:

- The referral of an individual for a service or product for which payment may be made by Medicare, Medicaid or other government-sponsored healthcare program; or
- Purchasing, ordering, arranging for, or recommending the ordering of, any service or product for which payment may be made by a government-sponsored healthcare program.

The definition of "remuneration" has been broadly interpreted to include anything of value, including such items as gifts,

certain discounts, waiver of payments, and providing anything at less than its fair market value. In addition, several courts have interpreted the law to mean that if “one purpose” of an arrangement is intended to induce referrals, the statute is violated.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are lawful in businesses outside of the healthcare industry. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, the Office of Inspector General of the Department of Health and Human Services (OIG) has issued regulations, commonly known as "safe harbors." These safe harbors set forth certain requirements that, if fully met, will assure healthcare providers, including medical device manufacturers, that they will not be prosecuted under the Anti-Kickback Statute. Although full compliance with these safe harbor provisions ensures against prosecution under the Anti-Kickback Statute, full compliance is often difficult and the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the Anti-Kickback Statute will be pursued. However, conduct and business arrangements that do not fully satisfy each applicable safe harbor may result in increased scrutiny by government enforcement authorities such as the OIG. The statutory penalties for violating the Anti-Kickback Statute include imprisonment for up to five years and criminal fines of up to \$25,000 per violation. In addition, through application of other laws, conduct that violates the Anti-Kickback Statute can also give rise to False Claims Act lawsuits, civil monetary penalties and possible exclusion from Medicare and Medicaid and other federal healthcare programs. In addition to the Federal Anti-Kickback Statute, many states have their own kickback laws. Often, these laws closely follow the language of the federal law, although they do not always have the same scope, exceptions, safe harbors or sanctions. In some states, these anti-kickback laws apply not only to payment made by a government health care program but also with respect to other payors, including commercial insurance companies.

Other Fraud and Abuse Laws

The federal False Claims Act (FCA) prohibits any person from knowingly presenting, or causing to be presented, a false claim or knowingly making, or causing to be made, a false statement to obtain payment from the federal government. Those found in violation of the FCA can be subject to fines and penalties of three times the damages sustained by the government, plus mandatory civil penalties of between \$5,500 and \$11,000 for each separate false claim. Actions filed under the FCA can be brought by any individual on behalf of the government, a "qui tam" action, and such individual, known as a "relator" or, more commonly, as a "whistleblower," who may share in any amounts paid by the entity to the government in damages and penalties or by way of settlement. In addition, certain states have enacted laws modeled after the FCA, and this legislative activity is expected to increase. Qui tam actions have increased significantly in recent years, causing greater numbers of healthcare companies, including medical device manufacturers, to defend false claim actions, pay damages and penalties or be excluded from Medicare, Medicaid or other federal or state healthcare programs as a result of investigations arising out of such actions.

The OIG also has authority to bring administrative actions against entities for alleged violations of a number of prohibitions, including the Anti-Kickback Statute and the Stark Law. The OIG may seek to impose civil monetary penalties or exclusion from the Medicare, Medicaid and other federal healthcare programs. Civil monetary penalties can range from \$2,000 to \$50,000 for each violation or failure plus, in certain circumstances, three times the amounts claimed in reimbursement or illegal remuneration. Typically, exclusions last for five years.

In addition, we must comply with a variety of other laws, such as laws prohibiting false claims for reimbursement under Medicare and Medicaid, all of which can also be triggered by violations of federal anti-kickback laws; the Health Insurance Portability and Accounting Act of 1996, which makes it a federal crime to commit healthcare fraud and make false statements; and the Federal Trade Commission Act and similar laws regulating advertisement and consumer protections.

There are also an increasing number of state “sunshine” laws that require manufacturers to provide reports to state governments on pricing and marketing information. Several states have enacted legislation requiring medical device companies to, among other things, establish marketing compliance programs, file periodic reports with the state, make periodic public disclosures on sales and marketing activities, and to prohibit or limit certain other sales and marketing practices. In addition, a federal law known as the Physician Payments Sunshine Act, requires medical device manufacturers to track and report to the federal government certain payments and other transfers of value made to physicians and teaching hospitals and ownership or investment interests held by physicians and their immediate family members. The federal government discloses the reported information on a publicly available website. If we fail to track and report as required by these laws or to otherwise comply with these laws, we could be subject to the penalty provisions of the pertinent state and federal authorities.

Environment, Health and Safety

We are subject to laws and regulations related to the protection of the environment, the health and safety of employees and the handling, transportation and disposal of medical specimens, infectious and hazardous waste and radioactive materials. For example, the U.S. Occupational Safety and Health Administration (OSHA) has established extensive requirements relating specifically to workplace safety for healthcare employers in the U.S. This includes requirements to develop and implement multi-faceted programs to protect workers from exposure to blood-borne pathogens, such as HIV and hepatitis B and C, including preventing or minimizing any exposure through needle stick injuries. For purposes of transportation, some biological

materials and laboratory supplies are classified as hazardous materials and are subject to regulation by one or more of the following agencies: the U.S. Department of Transportation, the U.S. Public Health Service, the United States Postal Service and the International Air Transport Association.

Reimbursement

United States

In the United States, payments for diagnostic tests come from several sources, including third party payors such as health maintenance organizations and preferred provider organizations; government health programs such as Medicare and Medicaid; and, in certain circumstances, hospitals, referring laboratories or the patients themselves. For many years, federal and state governments in the United States have pursued methods to reduce the cost of these programs. For example, in 2010, the United States enacted major healthcare reform legislation known as the Patient Protection and Affordable Care Act (ACA). Such changes have had, and are expected to continue to have, an impact on our business. At present, Medicare payment rates are affected by across-the-board federal budget cuts commonly referred to as “sequestration.” Under sequestration, the Centers for Medicare & Medicaid Services (CMS), the federal agency responsible for administering Medicare and Medicaid, reduced Medicare payments to providers by 2% annually beginning in 2013 and through 2023.

Code Assignment. In the United States, a third-party payor's decisions regarding coverage and payment are impacted, in large part, by the specific Current Procedural Terminology, or CPT, code used to identify a test. The American Medical Association, or AMA, publishes the CPT, which is a listing of descriptive terms and identifying codes for reporting medical services and procedures. The purpose of the CPT is to provide a uniform language that accurately describes medical, surgical, and diagnostic services and therefore to ensure reliable nationwide communication among healthcare providers, patients, and third-party payors.

A manufacturer of in vitro diagnostic kits or a provider of laboratory services may request establishment of a Category I CPT code for a new product. Assignment of a specific CPT code ensures routine processing and payment for a diagnostic test by both private and government third-party payors.

The AMA has specific procedures for establishing a new CPT code and, if appropriate, for modifying existing nomenclature to incorporate a new test into an existing code. If the AMA concludes that a new code or modification of nomenclature is unnecessary, the AMA will inform the requestor how to use one or more existing codes to report the test.

While the AMA's decision is pending, billing and collection may be sought under an existing, non-specific CPT code. A manufacturer or provider may decide not to request assignment of a CPT code and instead use an existing, non-specific code for reimbursement purposes. However, use of such codes may result in more frequent denials and/or requests for supporting clinical documentation from the third-party payor and in lower reimbursement rates, which may vary based on geographical location.

In 2012, the AMA added 127 new CPT codes for molecular pathology services that became effective on January 1, 2013. These new CPT codes are biomarker specific and were designed to replace the previous methodology of billing for molecular pathology testing, which involved “stacking” a series of non-biomarker specific CPT codes together to describe the testing performed. The new CPT codes were issued final national reimbursement prices by CMS in November of 2013. These federal reimbursement amounts are widely acknowledged to be lower than the reimbursement obtained by the now outdated “stacking” method, but commercial payors and Medicare contractors are still in the process of solidifying their coverage and reimbursement policies for the testing described by these new CPT codes. The lower reimbursement amounts experienced in the field of molecular pathology testing may soon be extending to other codes on the Clinical Laboratory Fee Schedule as CMS begins to base CPT laboratory code payment on third party payer rates in 2017, per the Protecting Access to Medicare Act (PAMA) passed in April 2014.

Coverage Decisions. When deciding whether to cover a particular diagnostic test, private and government third-party payors generally consider whether the test is a contractual benefit and, if so, whether it is reasonable and necessary for the diagnosis or treatment of illness and injury. Most third-party payors do not cover experimental services. Coverage determinations often are influenced by current standards of practice and clinical data, particularly at the local level. The Centers for Medicare & Medicaid Services (CMS) which is the government agency responsible for overseeing the Medicare program, has the authority to make coverage determinations on a national basis, but most Medicare coverage decisions are made at the local level by contractors that administer the Medicare program in specified geographic areas. Private and government third-party payors have separate processes for making coverage determinations, and private third-party payors may or may not follow Medicare's coverage decisions. If a third-party payor has a coverage determination in place for a particular diagnostic test, billing for that test must comply with the established policy. Otherwise, the third-party payor makes reimbursement decisions on a case-by-case basis.

Payment. Payment for covered diagnostic tests is determined based on various methodologies, including prospective payment systems and fee schedules. In addition, private third-party payors may negotiate contractual rates with participating providers or

set rates as a percentage of the billed charge. Diagnostic tests furnished to Medicare inpatients generally are included in the bundled payment made to the hospital under Medicare's Inpatient Prospective Payment System, utilizing Diagnosis Related Groups (DRGs) depending on the patient's condition. Payment for diagnostic tests furnished to Medicare beneficiaries in outpatient circumstances is made based on the Clinical Laboratory Fee Schedule, under which a payment amount is assigned to each covered CPT code, or through the Outpatient Prospective Payment System (OPPS), which is the outpatient equivalent of the DRG model. The law technically requires fee schedule amounts to be adjusted annually by the percentage increase in the consumer price index (CPI) for the prior year, but Congress has frozen payment rates in certain years. Medicaid programs generally pay for diagnostic tests based on a fee schedule, but reimbursement varies by state.

European Union

In the European Union, the reimbursement mechanisms used by private and public health insurers vary by country. For the public systems, reimbursement is determined by guidelines established by the legislator or responsible national authority. As elsewhere, inclusion in reimbursement catalogues focuses on the medical usefulness, need, quality and economic benefits to patients and the healthcare system. Acceptance for reimbursement comes with cost, use and often volume restrictions, which again can vary by country.

Conflict Minerals

Recent U.S. legislation has been enacted to improve transparency and accountability concerning the sourcing of conflict minerals from mines located in the conflict zones of the Democratic Republic of Congo (DRC) and its adjoining countries. The term conflict minerals currently encompasses tantalum, tin, tungsten (or their ores) and gold. Certain of our instrumentation product components which we purchase from third party suppliers contain gold. This U.S. legislation requires manufacturers, such as us, to investigate our supply chain and disclose if there is any use of conflict minerals originating in the DRC or adjoining countries. We conduct due diligence measures annually to determine the presence of conflict minerals in our products and the source of any such conflict minerals. Because we do not purchase conflict minerals directly from smelters or refineries, we rely on our suppliers to specify to us their Conflict Minerals sources and declare their conflict minerals status. We disclosed our most recent Conflict Minerals findings to the Securities Exchange Commission for the calendar year ending December 31, 2015 on Form SD on May 25, 2016 and will provide updated disclosure to the Securities Exchange Commission as required.

Organizational Structure

QIAGEN N.V. is the holding company for more than 50 consolidated subsidiaries, many of which have the primary function of distributing our products and services on a regional basis. Certain subsidiaries also have research and development or production activities. A listing of our significant subsidiaries and their jurisdictions of incorporation is included in Exhibit 8.1 to this Annual Report.

Description of Property

Our production and manufacturing facilities for consumable products are located in Germany, the United States, China, and the United Kingdom. Our facilities for software development are located in the United States, Germany, Poland and Romania. In recent years, we have made investments in automated and interchangeable production equipment to increase our production capacity and improve efficiency. Our production and manufacturing operations are highly integrated and benefit from sophisticated inventory control. Production management personnel are highly qualified, and many have advanced degrees in engineering, business and science. We also have installed and continue to expand production-planning systems that are included in our integrated information and control system based on the SAP R/3 business software package from SAP AG. Worldwide, we use SAP software to integrate most of our operating subsidiaries. Capital expenditures for property, plant and equipment totaled \$74.5 million, \$97.8 million and \$86.6 million for 2016, 2015 and 2014, respectively.

We have an established quality system, including standard manufacturing and documentation procedures, intended to ensure that products are produced and tested in accordance with the FDA's Quality System Regulations, which impose current Good Manufacturing Practice (cGMP) requirements. For cGMP production, special areas were built in our facilities in Hilden, Germany, and Germantown, Maryland. These facilities operate in accordance with cGMP requirements.

The consumable products manufactured at QIAGEN GmbH in Germany, and QIAGEN Sciences LLC in Maryland, are produced under ISO 9001: 2008, ISO 13485:2012, ISO 13485:2003 CMDCAS. Our certifications form part of our ongoing commitment to provide our customers with high-quality, state-of-the-art sample and assay technologies under our Total Quality Management system.

Our facilities in Hilden, Germany, currently occupy a total of approximately 776,000 square feet, some of which is leased pursuant to separate contracts, the last of which expires in 2018. In December 2016, we signed a contract to purchase additional office and warehouse space of approximately 4,400 square feet which we plan to occupy in the first quarter of 2017. During 2015, we purchased additional office and warehouse space of approximately 23,700 square feet. Our production capacity is increased through our manufacturing and research facilities in the United States. QIAGEN Sciences, LLC owns a 24-acre site

in Germantown, Maryland. The 285,000 square foot Germantown facility consists of several buildings in a campus-like arrangement and can accommodate over 500 employees. There is room for future expansion of up to 300,000 square feet of facility space. In 2015, we completed expansion of our research and production facilities in Hilden, Germany and renovations of administrative facilities in Germantown, Maryland.

We lease a facility in Frederick, Maryland comprising a total of 42,000 square feet for manufacturing, warehousing, distribution and research operations. We also lease facilities in Massachusetts with 44,400 square feet in Waltham for GeneReader NGS system development and 39,100 square feet in Beverly for enzyme manufacturing. Our California sites have a total of 33,500 square feet in Redwood City for Bioinformatics. Additionally, we lease smaller facilities in Shenzhen, China and Manchester, United Kingdom for manufacturing, warehousing, distribution and research operations. In 2015, we completed expansion work in Manchester to add additional research and development space. Other subsidiaries throughout the world lease smaller amounts of space. Our corporate headquarters are located in leased office space in Venlo, The Netherlands.

We believe our existing production and distribution facilities can support anticipated production needs for the next 36 months. Our production and manufacturing operations are subject to various federal, state, and local laws and regulations including environmental regulations. We do not believe we have any material issues relating to these laws and regulations.

Item 4A. Unresolved Staff Comments

Not applicable.

Item 5. Operating and Financial Review and Prospects

This section contains a number of forward-looking statements. These statements are based on current management expectations, and actual results may differ materially. Among the factors that could cause actual results to differ from management's expectations are those described in "Risk Factors" and "Forward-looking and Cautionary Statements" in Item 3 of this Annual Report.

Results of Operations

Overview

We are a leading global provider of Sample to Insight solutions to transform biological materials into valuable molecular insights. QIAGEN sample technologies isolate and process DNA, RNA and proteins from any biological sample, such as blood or tissue. Assay technologies make these biomolecules visible and ready for analysis, such as identifying the DNA of a virus or a mutation of a gene. Bioinformatics solutions integrate software and cloud-based resources to interpret increasing volumes of biological data and report relevant, actionable insights. Our automation solutions tie these together in seamless and cost-effective molecular testing workflows.

We sell our products - consumables, automated instrumentation systems using those technologies, and bioinformatics to analyze and interpret the data - to four major customer classes:

- **Molecular Diagnostics** - healthcare providers engaged in many aspects of patient care including our three priority focus areas of oncology, infectious diseases and immune monitoring
- **Applied Testing** - government or industry customers using molecular technologies in fields such as forensics, veterinary diagnostics and food safety testing
- **Pharma** - pharmaceutical and biotechnology companies using molecular testing to support drug discovery, translational medicine and clinical development efforts
- **Academia** - researchers exploring the secrets of life such as the mechanisms and pathways of diseases, and in some cases translating that research into drug targets or commercial applications

We market products in more than 130 countries, mainly through subsidiaries in markets we believe have the greatest sales potential in Europe, Asia, the Americas and Australia. We also work with specialized independent distributors and importers. As of December 31, 2016, we employed approximately 4,700 people in more than 35 locations worldwide.

Recent Acquisitions

We have made a number of strategic acquisitions since 2014, targeting innovative technologies to achieve market-leading positions in high-growth areas of molecular diagnostics and research. These transactions have expanded our product offerings and technology platforms, as well as our geographic presence. They include:

- In January 2017, QIAGEN acquired OmicSoft Corporation, a privately held company based in the Research Triangle area of North Carolina, to expand our industry-leading bioinformatics offering with complementary solutions enabling scientists to visualize and mine large institutional and publicly available "omics" datasets. The OmicSoft software

solutions meet a growing need in discovery and translational research to access and manage huge amounts of data on DNA, RNA and other biological variables generated by next-generation sequencing studies.

- During 2016, QIAGEN acquired Exiqon A/S, a publicly traded company based in Vedbaek, Denmark, expanding our leadership position in Sample to Insight solutions for RNA analysis. Exiqon's RNA analysis solutions, with proprietary Locked Nucleic Acid (LNA) technology, are used by academic, biotech and pharmaceutical researchers worldwide to explore correlations between gene activity and the development of cancer and other diseases. On June 28, 2016, we paid DKK 627.4 million (\$95.2 million) for approximately 94.52% of the outstanding common shares of Exiqon. We acquired the remaining Exiqon shares subsequent to the acquisition date for \$5.5 million in cash and held 100% of the shares as of December 31, 2016.
- In November 2015, we acquired MO BIO Laboratories, Inc., a privately-held provider of cutting-edge sample technologies for studies of the microbiome and metagenomics, analyzing the impact of microbial diversity on health and the environment. The acquisition added a complementary portfolio of sample technologies to QIAGEN's universal solutions for next-generation sequencing. MO BIO kits, based on proprietary Inhibitor Removal Technology, enable the isolation of pure DNA from challenging samples like soil, water, plants and stool.
- In March 2015, we acquired an innovative technology that enables enrichment and molecular analysis of circulating tumor cells (CTCs) from blood samples from AdnaGen GmbH, a subsidiary of Alere Inc. The acquisition added to QIAGEN's pipeline of technologies for molecular testing through non-invasive liquid biopsies as an alternative to costly and risky tissue biopsies. Other assets acquired include two marketed CE-IVD marked products, AdnaTest BreastCancer and AdnaTest Prostate Cancer, for treatment monitoring and detection of tumor relapse.
- In February 2015, we announced the spin-off of teams and activities of QIAGEN Marseille S.A. (formerly Ipsogen S.A.), a majority-owned and fully consolidated entity. In the divestiture, QIAGEN Marseille agreed to the sale of all its assets and liabilities, with the exception of its intellectual property portfolio, to a stand-alone company. QIAGEN retained rights to commercialize the *ipsogen* line of products, including companion diagnostics for blood cancers. As part of this initiative, we made a tender offer to acquire the remaining QIAGEN Marseille shares. We acquired those shares during 2015 and 2016 and held 100% of the QIAGEN Marseille shares as of December 31, 2016.
- In December 2014, we acquired the enzyme solutions business of Enzymatics, a U.S. company whose products are used in an estimated 80% of all next-generation sequencing workflows. The broad Enzymatics portfolio complements QIAGEN's leading offering of universal NGS products, advancing our strategy to drive the adoption of NGS in clinical healthcare.
- In April 2014, we acquired BIOBASE, a provider of expertly curated biological databases, software and services based in Wolfenbuettel, Germany, expanding our bioinformatics solutions with BIOBASE content including gold-standard data in the fields of inherited diseases and pharmacogenomics. QIAGEN integrated the BIOBASE content into our Ingenuity Knowledge Base, adding value for customers in interpreting genomic data from next-generation sequencing.

Our financial results include the contributions of recent acquisitions and the QIAGEN Marseille spin-off from their effective dates, as well as costs related to the transactions and integration of the acquired companies, such as the relocation and closure of certain facilities.

We determined that we operate as one business segment in accordance with ASC Topic 280, *Segment Reporting*. Our chief operating decision maker (CODM) makes decisions on business operations and resource allocation based on evaluations of the QIAGEN Group as a whole. Considering the acquisitions made during 2016, we determined that we still operate as one business segment. We provide certain revenue information by customer class to allow better insight into our operations. This information is estimated using certain assumptions to allocate revenue among the customer classes.

Year Ended December 31, 2016, Compared to 2015

Net Sales

In 2016, net sales grew 4% to \$1.34 billion compared to \$1.28 billion in 2015, including two percentage points of adverse currency movements. Excluding the effect of adverse currency movements, organic business expansion contributed four percentage points to total sales growth while nearly two percentage points of additional growth came from the December 2015 acquisition of MO BIO Laboratories Inc, a leader in sample technologies for metagenomics and microbiome analysis, and the June 2016 acquisition of Exiqon A/S, a leader in RNA analysis technologies. Excluding the expected impact of sharply lower U.S. sales of HPV tests, which created approximately two percentage points of headwind, as well as the effect of adverse currency movements, net sales rose approximately 8% in 2016. All regions and customer classes supported higher sales of consumables and related revenues (+5% / 87% of sales) and instruments (+3% / 13% of sales).

Net sales by geographic region

	Full-year 2016		
	Sales (In \$ m)	% change	% of sales
Americas ⁽¹⁾	\$627	4%	47%
Europe / Middle East / Africa	\$428	4%	32%
Asia-Pacific / Japan	\$279	10%	21%
Top 7 emerging markets ⁽²⁾	\$209	13%	16%

(1) Americas excluding U.S. HPV (+6%)

(2) Top 7 emerging markets: Brazil, Russia, India, China, South Korea, Mexico and Turkey.

FY 2016: Rest of world represented less than 1% of net sales.

Geographic regions: The Asia-Pacific / Japan region led the geographic performance with 10% growth in 2016 reflecting adverse currency movements of one percentage point of sales growth, benefiting from key contributions from China, South Korea and India. The Americas advanced at a faster pace (+6%) when excluding U.S. HPV test sales on higher sales of the QuantiFERON-TB test and improved conditions among Life Science customers. Europe / Middle East / Africa advanced 4% reflecting adverse currency movements of approximately four percentage points of sales growth while experiencing expansion in markets such as France, the United Kingdom, Turkey and the Middle East. Turkey, China, South Korea, India and Brazil were key contributors (+13% / 16% of sales) when excluding adverse currency movements of 6 percentage points.

Customer classes: An overview of performance in QIAGEN's four customer classes:

Net sales by product category and customer class

	Full-year 2016		
	Sales (In \$ m)	% change	% of sales
Consumables and related revenues	\$1,166	5%	87%
Instruments	\$172	3%	13%
Molecular Diagnostics ⁽¹⁾	\$663	4%	50%
<i>Of which: U.S. HPV test solutions</i>	\$33	-29%	3%
<i>MDx excluding U.S. HPV⁽¹⁾</i>	\$630	7%	47%
Applied Testing	\$120	5%	9%
Pharma	\$262	5%	19%
Academia	\$293	4%	22%

(1) Includes companion diagnostic co-development revenues (\$32 million, -8%)

Molecular Diagnostics, which contributed approximately 50% of net sales, expanded by 4% in 2016 reflecting adverse currency movements of three percentage points of sales growth. The core portfolio delivered approximately 10% growth before adverse currency impacts and the ongoing decline in sales of U.S. HPV test products (-29% / 3% of sales). Sales of consumables used on the QIASymphony automation platform also grew at a solid pace for the full year, as QIAGEN exceeded its goal for new QIASymphony placements.

Applied Testing represented approximately 9% of net sales, grew 5% in 2016 compared to 2015 with adverse currency movements resulting in a loss of two percentage points of sales growth. Before negative currency impacts, Applied Testing advanced on high-single digit growth rates for instruments while consumables and related revenues grew at mid-single digit rates.

Pharma experienced 5% sales growth in 2016 compared to 2015 with adverse currency movements resulting in a loss of two percentage points of sales growth and provided 19% of net sales. Pharma grew on high-single digit growth rates for consumables and related revenues while instruments maintained a mid-single digit rate during the course of the year before negative currency impacts.

Academia represented approximately 22% of net sales and rose 4% in 2016 compared to 2015 with negligible adverse currency movements. Before negative currency impacts, Academia advanced on a mid-single digit growth rate for consumables and related revenues while all regions showed gains in this customer class in 2016.

Gross Profit

Gross profit was \$844.7 million, or 63% of net sales, in 2016, compared with \$826.7 million, or 65% of net sales, in 2015. Generally, our consumables and related products have a higher gross margin than our instrumentation products and service arrangements. Fluctuations in the sales levels of these products and services can result in fluctuations in gross margin between periods. Gross profit in 2016 was impacted by lower gross margins for companion diagnostic partnerships. Further, gross profit in 2016 was impacted by impairment charges of \$12.0 million recognized in connection with our 2016 restructuring. Additionally, during 2016, we incurred incremental costs in connection with the relocation and centralization of the manufacturing of certain products to our European production site in Hilden, Germany and also in connection with the insourcing of the manufacturing of our QuantiFERON product to our U.S. production site in Germantown, Maryland.

Amortization expense related to developed technology and patent and license rights, which have been acquired in business combinations, is included in cost of sales. The amortization expense on acquisition-related intangibles within cost of sales decreased slightly to \$80.1 million in 2016 from \$84.5 million in 2015. Acquisition-related intangible amortization would increase in the future should we make further acquisitions.

Research and Development

Research and development expenses increased by 20% to \$176.1 million (13% of net sales) in 2016, compared to \$146.8 million (11% of net sales) in 2015. The increase in 2016 includes \$26.4 million in restructuring costs related to internal restructuring activities, including personnel related and asset impairment costs. During 2015, we introduced our GeneReader NGS System and continue to invest in research and development as we develop a range of upgrades and enhancements to address new applications and market segments. We also plan to introduce additional cancer-related gene panels, with longer-term expansion of the NGS content menu beyond oncology. The increase in research and development costs during 2016 also reflects our ongoing investments in NGS and our life sciences portfolio, as well as our acquisitions of MO BIO in late 2015 and Exiqon in 2016 together with regulatory activity in support of new products. As we continue to discover, develop and acquire new products and technologies, we expect to incur additional expenses related to facilities, licenses and employees engaged in research and development. Additionally, research and development costs are expected to increase as a result of seeking regulatory approvals, including U.S. FDA Pre-Market Approval (PMA), U.S. FDA 510(k) clearance and EU CE approval of certain assays or instruments. Further, business combinations, along with the acquisition of new technologies, may increase our research and development costs in the future. We have a strong commitment to innovation and expect to continue to make investments in our research and development efforts.

Sales and Marketing

Sales and marketing expenses increased 12% to \$401.4 million (30% of net sales) in 2016 from \$359.6 million (28% of net sales) in 2015. The increase in 2016 includes \$24.9 million in restructuring costs related to internal restructuring activities, including personnel related and advisory costs. Additionally, sales and marketing expenses were higher as a percentage of sales in 2016 as compared to 2015 to support commercialization of growth drivers and geographic expansion. Sales and marketing expenses are primarily associated with personnel, commissions, advertising, trade shows, publications, freight and logistics expenses, and other promotional expenses. In 2016, we continued investments in our commercialization activities related to our sales force, in particular the addition of sales representatives for QuantiFERON TB and the life sciences markets. We have also continued our e-commerce initiatives as well as investments to expand our presence in markets such as the Middle East and Asia. These incremental investments more than offset favorable currency impacts and lower compensation costs following a reassessment of stock units with performance criteria. We anticipate that absolute sales and marketing costs will increase along with new product introductions and growth in sales of our products, but decrease as a percentage of sales. Further, looking forward we expect a lower cost base following the realignment of marketing activities as part of the restructuring project initiated in the fourth quarter of 2016.

General and Administrative, Integration and Other

General and administrative, integration and other costs increased by 27% to \$129.2 million (10% of net sales) in 2016 from \$102.1 million (8% of net sales) in 2015. In 2016, acquisition and integration costs totaled \$31.1 million, of which \$6.3 million related to the transaction costs incurred in connection with the acquisition of Exiqon A/S. In 2015, acquisition and integration

costs totaled \$13.9 million, of which \$7.5 million related to the transaction costs incurred in connection with the acquisition of MO BIO Laboratories. Acquisition and integration related costs in 2016 are net of \$5.0 million of the total \$6.5 million gains recorded in general and administrative costs from the reduction in the fair value of contingent consideration following unmet milestones. Additionally, the increase in 2016 includes \$4.9 million in restructuring costs related to internal restructuring activities, including severance and retention costs. The increase in general and administrative, integration and other costs also reflects an increase of \$5.1 million related to share-based compensation expense as 2015 includes the impact of lower share based compensation costs following a reassessment of stock units with performance criteria. As we further integrate the acquired companies and pursue other opportunities to gain efficiencies, we expect to continue to incur additional business integration in 2017. Over time, we believe the integration activities will reduce expenses as we improve efficiency in operations.

Acquisition-Related Intangible Amortization

Amortization expense related to developed technology and patent and license rights acquired in a business combination is included in cost of sales. Amortization of trademarks and customer base acquired in a business combination is recorded in operating expense under the caption "acquisition-related intangible amortization." Amortization expenses of intangible assets not acquired in a business combination are recorded within cost of sales, research and development, or sales and marketing line items based on the use of the asset.

During 2016, amortization expense on acquisition-related intangibles within operating expense increased to \$39.1 million, compared to \$38.7 million in 2015. We expect acquisition-related intangible amortization will increase as a result of our future acquisitions.

Other Income (Expense)

Total other expense, net was \$41.9 million in 2016, compared to \$43.2 million in 2015. Total other expense, net is primarily the result of interest expense and other expense, partially offset by interest income.

For the year ended December 31, 2016, interest income increased to \$6.8 million from \$4.8 million in 2015. Interest income includes interest earned on cash, cash equivalents and short term investments, income related to certain interest rate derivatives as discussed in Note 13 in the accompanying consolidated financial statements and other components including the interest portion of operating lease transactions.

Interest expense increased to \$39.0 million in 2016, compared to \$37.4 million in 2015. Interest costs primarily relate to debt, discussed in Note 15 in the accompanying consolidated financial statements.

Other expense, net was \$9.7 million for the year ended December 31, 2016, and includes a \$8.3 million loss recognized in connection with the impairment of an equity-method investment and a \$2.6 million charge for the disposal of goodwill following the transfer of the research and development activities of our instrumentation business as part of the restructuring program initiated late in 2016. Included in \$10.6 million of other expense, net in 2015 is a \$7.6 million loss recognized on the repurchase of the \$130.5 million loan payable to and warrant agreement with QIAGEN Finance. For the year ended December 31, 2016, we recorded net losses on foreign currency of less than \$0.1 million compared to \$0.5 million in 2015 due to foreign currency rate fluctuations.

Provision for Income Taxes

Our effective tax rates differ from The Netherlands statutory tax rate of 25% due in part to our operating subsidiaries being exposed to effective tax rates ranging from zero to more than 40%. In 2016 and 2015, our effective tax rates were (41.1)% and 4.7%, respectively. The comparison is impacted by pre-tax book income which was lower in 2016 at \$56.9 million compared to \$136.3 million in 2015. Pretax book income was lower in 2016 primarily due to charges incurred in connection with the restructuring program initiated in the fourth quarter of 2016. Fluctuations in the distribution of pre-tax (loss) income among our operating subsidiaries can lead to fluctuations of the effective tax rate in the consolidated financial statements. In 2016 and 2015, tax expense on foreign operations was favorably impacted by lower income tax rates and partial tax exemptions on foreign income primarily derived from operations in Germany, Singapore, Luxembourg, Ireland and Switzerland. These foreign tax benefits are due to a combination of favorable tax laws, regulations, rulings, and exemptions in these jurisdictions. In particular, we have pre-tax income in Germany which is statutorily exempt from trade tax on intercompany foreign royalty income. Further, we have intercompany financing arrangements through Luxembourg and Ireland in which the intercompany income is partially exempt. See Note 16 to the consolidated financial statements for a full reconciliation of the effective tax rate to The Netherlands statutory rate.

In future periods, our effective tax rate may fluctuate from similar or other factors as discussed in "Changes in tax laws or their application could adversely affect our results of operations or financial flexibility" in Item 3 *Risk Factors*.

Year Ended December 31, 2015, Compared to 2014

Net Sales

In 2015, net sales decreased 5% to \$1.28 billion compared to \$1.34 billion in 2014, due to about eight percentage points of adverse currency movements. Excluding the effect of adverse currency movements, total growth reflected higher contributions from consumables and related revenues (+3% / 87% of sales) and instruments (+5% / 13% of sales). Excluding the effect of adverse currency movements, about two percentage points of total sales growth came from the acquisitions of the Enzymatics NGS technology and consumables portfolio (acquired in December 2014) and the BIOBASE bioinformatics business (acquired in April 2014), while sales in the rest of the business provided about one percentage point. Late in the fourth quarter of 2015, we completed the acquisition of MO BIO Laboratories Inc., a leader in sample technologies for metagenomics and microbiome analysis, but this had a negligible contribution to net sales in 2015. Excluding the expected impact of sharply lower U.S. sales of HPV tests, which created approximately three percentage points of headwind, as well as the effect of adverse currency movements, net sales rose approximately 6% in 2015.

Geographic regions: Excluding the loss of 15 percentage points of sales growth due to adverse currency movements, the Europe / Middle East / Africa region led the geographic performance, benefiting from gains in Germany and Turkey, as well as improving performances in other countries. The Americas advanced at a faster pace (+7%) when excluding U.S. HPV test sales and when excluding 3 percentage points of adverse currency movements. Asia-Pacific / Japan advanced on gains in China and ongoing robust growth in South Korea while Japan sales declined on macro challenges when excluding 8 percentage points of adverse currency movements. Turkey, China, South Korea and India led results for the top emerging markets (+8% / 15% of sales) against declining sales in Mexico and Russia when excluding adverse currency movements of 10 percentage points.

Customer classes: An overview of performance in QIAGEN's four customer classes:

Molecular Diagnostics, which contributed approximately 50% of net sales, declined 7% in 2015 reflecting adverse currency movements of eight percentage points of sales growth in 2015. The core portfolio delivered approximately 7% growth before adverse currency impacts and the ongoing decline in sales of U.S. HPV test products (-43% / 3% of sales). Sales of consumables used on the QIASymphony automation platform also grew at a solid pace for the full year, as QIAGEN achieved its goal for new QIASymphony placements, but revenues were negatively impacted by multi-year reagent rental agreements. Personalized Healthcare sales also grew at a higher-single-digit rate for the year.

Applied Testing represented approximately 9% of net sales, declined 1% in 2015 compared to 2014 with adverse currency movements resulting in a loss of eight percentage points of sales growth. Before negative currency impacts, Applied Testing maintained a higher-single-digit growth pace for consumables and related revenues during 2015, while instruments grew at a lower-single-digit rate in the fourth quarter and for the year. All regions showed gains, in particular for products used in human ID / forensics.

Pharma sales growth remained unchanged compared to 2014 and provided approximately 19% of sales with adverse currency movements resulting in a loss of six percentage points of sales growth. Before negative currency impacts, Pharma advanced on mid-single-digit growth for both instruments and consumables and related revenues in 2015. The Europe / Middle East / Africa region and the Americas offset lower sales in Asia-Pacific / Japan.

Academia represented approximately 22% of net sales and declined 4% in 2015 compared to 2014 with adverse currency movements resulting in a loss of ten percentage points of sales growth. Academia advanced on higher-single digit growth rates for instruments while consumables and related revenues grew at a mid-single digit rate during the course of the year before negative currency impacts. The Americas led growth among all regions and benefited from more positive customer funding trends.

Gross Profit

Gross profit was \$826.7 million, or 65% of net sales, in 2015, compared with \$865.2 million, or 64% of net sales, in 2014. Adverse currency movements negatively impacted gross profit in 2015 by \$71.9 million. Generally, our consumable and related products have a higher gross margin than our instrumentation products and service arrangements. Fluctuations in the sales levels of these products and services can result in fluctuations in gross margin between periods. Further, amortization expense related to developed technology and patent and license rights, which have been acquired in business combinations, is included in cost of sales. Gross profit in 2014 was impacted by charges of \$26.4 million recorded in cost of sales in connection with internal restructuring efforts as well as those related to acquisitions. In 2014, these charges included \$24.2 million in impairments and \$2.2 million in contract termination costs as discussed in Note 6 in the accompanying consolidated financial statements.

Cost of sales includes amortization expense related to developed technology and patent and license rights acquired in business combinations. The amortization expense on acquisition-related intangibles within cost of sales increased slightly to \$84.5 million in 2015 from \$81.7 million in 2014. Acquisition-related intangible amortization would increase in the future should we make further acquisitions.

Research and Development

Research and development expenses decreased by 10% to \$146.8 million (11% of net sales) in 2015, compared to \$163.7 million (12% of net sales) in 2014. The decrease in research and development expenses is primarily due to \$14.3 million of favorable currency exchange impacts. During 2015, we introduced our GeneReader NGS System and will continue to invest in research and development as we are developing a range of upgrades and enhancements to address new applications and market segments. We also plan to introduce additional cancer-related gene panels, with longer-term expansion of the NGS content menu beyond oncology. Further, business combinations, along with the acquisition of new technologies, may increase our research and development costs in the future. As we continue to discover, develop and acquire new products and technologies, we expect to incur additional expenses related to facilities, licenses and employees engaged in research and development. Additionally, research and development costs are expected to increase as a result of seeking regulatory approvals, including U.S. FDA Pre-Market Approval (PMA), U.S. FDA 510(k) clearance and EU CE approval of certain assays or instruments. We have a strong commitment to innovation and expect to continue to make investments in our research and development efforts.

Sales and Marketing

Sales and marketing expenses decreased 4% to \$359.6 million (28% of net sales) in 2015 from \$376.1 million (28% of net sales) in 2014. The decrease was driven by \$33.5 million of favorable currency exchange impact which more than offset costs resulting from increased sales and marketing activities. Sales and marketing expenses are primarily associated with personnel, commissions, advertising, trade shows, publications, freight and logistics expenses, United States medical device excise tax (which has been suspended for 2016 and 2017) and other promotional expenses. During 2015, we continued investments in our commercialization activities related to our sales force and e-commerce initiatives which more than offset the favorable currency impacts and lower compensation costs following a reassessment of stock units with performance criteria. We anticipate that sales and marketing costs will increase along with new product introductions and growth in sales of our products.

General and Administrative, Integration and Other

General and administrative, integration and other costs decreased by 19% to \$102.1 million (8% of net sales) in 2015 from \$126.6 million (9% of net sales) in 2014. The comparison was affected by \$8.3 million in restructuring costs in 2014 related to internal restructuring of subsidiaries, including severance and retention costs as discussed in Note 6 in the accompanying consolidated financial statements. The decrease in general and administrative, business integration, and related costs includes a \$9.9 million favorable currency exchange impact. Additionally, share based compensation costs were lower compared to 2014 following a reassessment of stock units with performance criteria. During 2015 and 2014, we incurred acquisition transaction costs of approximately \$7.5 million and \$2.0 million, respectively primarily in connection with the 2015 acquisitions, including MO BIO Laboratories, and the 2014 acquisitions of Enzymatics and BIOBASE. As we further integrate the acquired companies and pursue other opportunities to gain efficiencies, we expect to continue to incur additional business integration in 2016. Over time, we believe the integration activities will reduce expenses as we improve efficiency in operations.

Acquisition-Related Intangible Amortization

Amortization expense related to developed technology and patent and license rights acquired in a business combination is included in cost of sales. Amortization of trademarks and customer base acquired in a business combination is recorded in operating expense under the caption "acquisition-related intangible amortization." Amortization expenses of intangible assets not acquired in a business combination are recorded within cost of sales, research and development, or sales and marketing line items based on the use of the asset.

During 2015, amortization expense on acquisition-related intangibles within operating expense increased to \$38.7 million, compared to \$37.1 million in 2014. We expect acquisition-related intangible amortization will increase as a result of our future acquisitions.

Other Income (Expense)

Other expense was \$43.2 million in 2015, compared to \$42.3 million in 2014. Total other expense, net is primarily the result of interest expense and other expense, partially offset by interest income and impacts of foreign currency transactions. Included in other expense, net for the year ended December 31, 2015, is a \$7.6 million loss recognized on the repurchase of the \$130.5 million loan payable to and warrant agreement with QIAGEN Finance. For the year ended December 31, 2014, a \$4.6 million loss recognized on the redemption of the \$300 million loan payable to and subscription right with QIAGEN Euro Finance is included. Both transactions are discussed more fully in Note 15 to the consolidated financial statements.

For the year ended December 31, 2015, interest income increased to \$4.8 million from \$4.0 million in 2014. Interest income includes interest earned on cash, cash equivalents and short term investments, income related to certain interest rate derivatives entered into in 2015 as discussed in Note 13 and other components including the interest portion of operating lease transactions.

Interest expense decreased to \$37.4 million in 2015, compared to \$39.3 million in 2014. Interest costs primarily relate to debt, discussed in Note 15 in the accompanying notes to the consolidated financial statements. Interest expense decreased primarily as a result of the repayments of the 2006 Notes as discussed in Note 15 to the consolidated financial statements.

For the year ended December 31, 2015, we recorded net losses on foreign currency of \$0.5 million compared to net gains of \$1.9 million in 2014. These gains and losses are due to foreign currency rate fluctuations.

Provision for Income Taxes

Our effective tax rates differ from The Netherlands statutory tax rate of 25% due in part to our operating subsidiaries being exposed to effective tax rates ranging from zero to more than 40%. Fluctuations in the distribution of pre-tax (loss) income among our operating subsidiaries can lead to fluctuations of the effective tax rate in the consolidated financial statements. In 2015 and 2014, our effective tax rates were 4.7% and 2.1%, respectively. In 2014, The Netherlands' tax expense was favorably impacted by fully tax exempt income related to financing activities which concluded in 2014 and 2015 and accordingly, the related income tax benefit will not impact our effective tax rate beyond 2015. Additionally, in 2015 and 2014, tax expense on foreign operations was favorably impacted by lower income tax rates and partial tax exemptions on foreign income primarily derived from operations in Germany, Singapore, Luxembourg and Switzerland. These foreign tax benefits are due to a combination of favorable tax laws, rules, rulings, and exemptions in these jurisdictions. In particular, we have pre-tax income in Germany which is statutorily exempt from trade tax on intercompany foreign royalty income. Further, we have intercompany financing arrangements through Luxembourg in which the intercompany income is partially exempt. See Note 16 to the consolidated financial statements for a full reconciliation of the effective tax rate to The Netherlands statutory rate.

In future periods, our effective tax rate may fluctuate from similar or other factors as discussed in "Changes in tax laws or their application could adversely affect our results of operations or financial flexibility" in Item 3 *Risk Factors*.

Foreign Currencies

QIAGEN N.V.'s reporting currency is the U.S. dollar, and most of our subsidiaries' functional currencies are the local currencies of the countries in which they are headquartered. All amounts in the financial statements of entities whose functional currency is not the U.S. dollar are translated into U.S. dollar equivalents at exchange rates as follows: (1) assets and liabilities at period-end rates, (2) income statement accounts at average exchange rates for the period, and (3) components of shareholders' equity at historical rates. Translation gains or losses are recorded in shareholders' equity, and transaction gains and losses are reflected in net income. The net (loss) gain on foreign currency transactions in 2016 was less than \$(0.1) million and in 2015 and 2014 was \$(0.5) million, and \$1.9 million, respectively, and is included in other expense, net.

Derivatives and Hedging. In the ordinary course of business, we use derivative instruments, including swaps, forwards and/or options, to manage potential losses from foreign currency exposures and variable rate debt. The principal objective of such derivative instruments is to minimize the risks and/or costs associated with global financial and operating activities. We do not utilize derivative or other financial instruments for trading or speculative purposes. We recognize all derivatives as either assets or liabilities on the balance sheet, measure those instruments at fair value and recognize the change in fair value in earnings in the period of change, unless the derivative qualifies as an effective hedge that offsets certain exposures. In determining fair value, we consider both the counterparty credit risk and our own creditworthiness, to the extent that the derivatives are not covered by collateral agreements with the respective counterparties. To determine our own credit risk, we estimated our own credit rating by benchmarking the price of our outstanding debt to publicly-available comparable data from rated companies. Using the estimated rating, we quantify our credit risk by reference to publicly-traded debt with a corresponding rating.

Foreign Currency Derivatives. As a globally active enterprise, we are subject to risks associated with fluctuations in foreign currencies in our ordinary operations. This includes foreign currency-denominated receivables, payables, debt, and other balance sheet positions including intercompany items. We manage our balance sheet exposure on a group-wide basis using foreign exchange options and cross-currency swaps.

Interest Rate Derivatives. We use interest rate derivative contracts on certain borrowing transactions to hedge interest rate exposures. We have entered into interest rate swaps in which we agree to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount.

We also make use of economic hedges. Further details of our derivative and hedging activities can be found in Note 13 to the accompanying consolidated financial statements.

Liquidity and Capital Resources

To date, we have funded our business primarily through internally generated funds, debt, and private and public sales of equity. Our primary use of cash has been to support continuing operations and our investing activities including capital expenditure requirements and acquisitions. As of December 31, 2016 and 2015, we had cash and cash equivalents of \$439.2 million and \$290.0 million, respectively. We also had short-term investments of \$93.0 million at December 31, 2016. Cash and cash

equivalents are primarily held in U.S. dollars and euros, other than those cash balances maintained in the local currency of subsidiaries to meet local working capital needs. At December 31, 2016, cash and cash equivalents had increased by \$149.2 million from December 31, 2015, primarily as a result of cash provided by operating activities of \$341.6 million, partially offset by cash used in financing activities of \$10.6 million and cash used in investing activities of \$179.1 million. As of December 31, 2016 and 2015, we had working capital of \$729.1 million and \$693.0 million, respectively.

Operating Activities. For the years ended December 31, 2016 and 2015, we generated net cash from operating activities of \$341.6 million and \$317.5 million, respectively. While net income was \$80.3 million in 2016, non-cash components in income included \$213.1 million of depreciation and amortization and \$44.4 million acquisition related and restructuring costs, primarily asset impairment and disposal costs incurred in connection with the restructuring program initiated in the fourth quarter of 2016.

Operating cash flows include a net decrease in working capital of \$1.3 million excluding changes in fair value of derivative instruments. The current period change in working capital is primarily due to increased inventories and accounts receivable, partially offset by increased accrued liabilities and taxes payable. Because we rely heavily on cash generated from operating activities to fund our business, a decrease in demand for our products, longer collection cycles or significant technological advances of competitors would have a negative impact on our liquidity.

Investing Activities. Approximately \$179.1 million of cash was used in investing activities during 2016, compared to \$146.2 million during 2015. Investing activities during 2016 consisted principally of \$496.3 million for purchases of short-term investments, \$74.5 million in cash paid for purchases of property and equipment, as well as \$19.4 million paid for intangible assets and \$23.4 million paid for strategic investments in privately and publicly held companies as discussed in Note 10, partially offset by \$533.8 million from the sale of short-term investments. Cash paid for acquisitions, net of cash acquired, of \$90.5 million primarily represents the total cash paid for the acquisition of Exiqon A/S, net of acquired cash.

Financing Activities. Approximately \$10.6 million of cash was used in financing activities for the year ended December 31, 2016 compared to \$258.6 million in 2015. Cash used during 2016 consisted primarily of \$6.7 million for the repayment of debt assumed via the acquisition of Exiqon, as well as other financing activities including \$3.1 million paid for contingent consideration and \$5.5 million for the acquisition of the remaining noncontrolling interests of Exiqon. Cash used during 2015, was mainly due to the repayment of the long-term debt of QIAGEN Finance of \$250.9 million as discussed in Note 15 "Lines of Credit and Debt." Additionally, cash used during 2015 included \$20.8 million for the purchase of treasury shares which was partially offset by \$10.3 million for the issuance of common shares in connection with our stock plan.

Other Factors Affecting Liquidity and Capital Resources

In October 2016, we extended the maturity of our €400 million syndicated revolving credit facility, which now has a contractual lifetime until December 2021 of which no amounts were utilized at December 31, 2016. The facility can be utilized in Euro, British pounds sterling, Swiss franc or U.S. dollar and bears interest of 0.40% to 1.20% above three months EURIBOR, or LIBOR in relation to any loan not in euro, and is offered with interest periods of one, two, three or six months. We have additional credit lines totaling €36.6 million with no expiration date, none of which were utilized as of December 31, 2016. We also have capital lease obligations, including interest, in the aggregate amount of \$2.7 million, and carry \$1.1 billion of long-term debt, of which no amounts are current as of December 31, 2016.

In March 2014, we issued \$730.0 million aggregate principal amount of Cash Convertible Senior Notes of which \$430.0 million is due in 2019 (2019 Notes) and \$300.0 million is due in 2021 (2021 Notes). We refer to the 2019 Notes and the 2021 Notes, collectively as the "Cash Convertible Notes" which are discussed fully in Note 15 to the consolidated financial statements. Interest on the Cash Convertible Notes is payable semiannually in arrears on March 19 and September 19 of each year, at rates of 0.375% and 0.875% per annum for the 2019 Notes and 2021 Notes, respectively, commencing on September 19, 2014. The 2019 Notes will mature on March 19, 2019 and the 2021 Notes will mature on March 19, 2021, unless repurchased or converted in accordance with their terms prior to such date.

In October 2012, we completed a U.S. private placement through the issuance of new senior unsecured notes at a total amount of \$400 million with a weighted average interest rate of 3.66% (settled on October 16, 2012). The notes were issued in three series: (1) \$73 million 7-year term due in 2019 (3.19%); (2) \$300 million 10-year term due in 2022 (3.75%); and (3) \$27 million 12-year term due in 2024 (3.90%).

We had notes payable, which were the long-term borrowings of the proceeds from the issuances of \$150.0 million senior unsubordinated convertible notes, with a 1.5% coupon due in 2024 through QIAGEN Finance (2004 Notes). The 2004 Notes were convertible into our common shares at a conversion price of \$12.6449, subject to adjustment. In connection with conversions of \$14.9 million of the 2004 Notes, we previously repaid \$14.5 million of the debt to QIAGEN Finance. During 2015, we paid \$250.9 million for the redemption of the remaining loan and repurchased the warrant agreement with QIAGEN Finance and recognized a loss of \$7.6 million in other expense, net.

In connection with certain acquisitions, we could be required to make additional contingent cash payments totaling up to \$27.6 million based on the achievement of certain revenue and operating results milestones as follows: \$15.5 million in 2017, \$5.1 million in 2019, and \$7.0 million, payable in any 12-month period from now until 2029 based on the accomplishment of certain revenue targets. Of the \$27.6 million total contingent obligation, we have assessed the fair value at December 31, 2016, to be \$8.8 million, of which \$5.8 million is included in other long-term liabilities and \$3.0 million is included in accrued liabilities in the accompanying balance sheet as of December 31, 2016.

In 2013, we announced a share buyback program, to purchase up to 100 million of our Common Shares (excluding transaction costs). We completed the share repurchase program in June 2014 having repurchased between September 2013 and June 2014 a total of approximately 4.4 million QIAGEN shares for a total aggregate cost of \$100.4 million (including performance fees).

In July 2014, we announced the launch of our third \$100 million share repurchase program to purchase up to another \$100 million of our common shares (excluding transaction costs). In 2014, 2.1 million QIAGEN shares were repurchased for \$49.1 million (excluding transaction costs) and in 2015 0.8 million QIAGEN shares were repurchased for \$20.8 million. This program expired in December 2015.

In January 2017, we completed a synthetic share repurchase that combined a direct capital repayment with a reverse stock split. The transaction was announced in August 2016 and involved an approach used by various large, multinational Dutch companies to provide returns to shareholders in a faster and more efficient manner than traditional open-market purchases. \$244.0 million was returned to shareholders through the transaction, which reduced the total number of issued common shares by approximately 3.7% to 230.8 million (of which 4.95 million in treasury) as of January 31, 2017. We announced additional share repurchases to take place via the open market during the remainder of 2017, with a view to return an aggregate amount of \$300 million to our shareholders.

Repurchased shares will be held in treasury in order to satisfy various obligations, which include the warrants issued in connection with the issuance of our Cash Convertible Notes and employee share-based remuneration plans.

We expect that cash from financing activities will continue to be impacted by issuances of our common shares in connection with our equity compensation plans and that the market performance of our stock will impact the timing and volume of the issuances. Additionally, we may make future acquisitions or investments requiring cash payments, the issuance of additional equity or debt financing.

We believe that funds from operations, existing cash and cash equivalents, together with the proceeds from our public and private sales of equity, and availability of financing facilities, will be sufficient to fund our planned operations and expansion during the coming year. However, any global economic downturn may have a greater impact on our business than currently expected, and we may experience a decrease in the sales of our products, which could impact our ability to generate cash. If our future cash flows from operations and other capital resources are not adequate to fund our liquidity needs, we may be required to obtain additional debt or equity financing or to reduce or delay our capital expenditures, acquisitions or research and development projects. If we could not obtain financing on a timely basis or at satisfactory terms, or implement timely reductions in our expenditures, our business could be adversely affected.

Off-Balance Sheet Arrangements

Other than our former arrangements with QIAGEN Finance and QIAGEN Euro Finance as discussed in Note 15 to the consolidated financial statements, we did not use special purpose entities and do not have off-balance sheet financing arrangements as of and during the years ended December 31, 2016, 2015 and 2014.

Contractual Obligations

As of December 31, 2016, our future contractual cash obligations are as follows:

Contractual Obligations (in thousands)	Payments Due by Period						
	Total	2017	2018	2019	2020	2021	Thereafter
Long-term debt ⁽¹⁾	\$ 1,161,611	\$ 18,869	\$ 18,869	\$ 493,339	\$ 14,928	\$ 275,249	\$ 340,357
Purchase obligations	95,276	61,643	19,824	12,257	891	661	—
Operating leases	38,602	13,338	9,292	6,121	3,752	3,409	2,690
License and royalty payments ⁽²⁾	65,502	15,969	11,562	10,702	10,438	8,066	8,765
Capital lease obligations ⁽³⁾	2,719	1,114	1,534	59	12	—	—
Total contractual cash obligations	<u>\$ 1,363,710</u>	<u>\$ 110,933</u>	<u>\$ 61,081</u>	<u>\$ 522,478</u>	<u>\$ 30,021</u>	<u>\$ 287,385</u>	<u>\$ 351,812</u>

⁽¹⁾ Amounts include required principal, stated at the current carrying values, and interest payments.

⁽²⁾ As of December 31, 2016, \$14.8 million and \$40.3 million are included in accrued and other current liabilities and other long-term liabilities, respectively.

⁽³⁾ Includes future cash payments, including interest, due under capital lease arrangements.

In addition to the above and pursuant to purchase agreements for several of our recent acquisitions, we could be required to make additional contingent cash payments totaling up to \$27.6 million based on the achievement of certain revenue and operating results milestones as follows: \$15.5 million in 2017, \$5.1 million in 2019 and \$7.0 million, payable in any 12-month period from now until 2029 based on the accomplishment of certain revenue targets, the launch of certain products or the grant of certain patent rights. As of December 31, 2016, we have accrued \$8.8 million for these contingent payments of which \$5.8 million is included in other long-term liabilities and \$3.0 million is included in accrued and other current liabilities.

Liabilities associated with uncertain tax positions, including interest and penalties, are currently estimated at \$19.8 million as of December 31, 2016 and are not included in the table above, as we cannot reasonably estimate when, if ever, an amount would be paid to a government agency. Ultimate settlement of these liabilities is dependent on factors outside of our control, such as examinations by each agency and expiration of statutes of limitation for assessment of additional taxes.

Critical Accounting Policies, Judgments and Estimates

The preparation of our financial statements in accordance with accounting principles generally accepted in the United States requires management to make assumptions that affect the reported amounts of assets, liabilities and disclosure of contingencies as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the reporting period. Critical accounting policies are those that require the most complex or subjective judgments often as a result of the need to make estimates about the effects of matters that are inherently uncertain. Thus, to the extent that actual events differ from management's estimates and assumptions, there could be a material impact to the financial statements. In applying our critical accounting policies, at times we used accounting estimates that either required us to make assumptions about matters that were highly uncertain at the time the estimate was made or it is reasonably likely that changes in the accounting estimate may occur from period to period that would have a material impact on the presentation of our results of operations, financial position or cash flows. Our critical accounting policies are those related to revenue recognition, share-based compensation, income taxes, investments, variable interest entities, goodwill and other intangible assets, purchase price allocation and fair value measurements. We reviewed the development, selection, and disclosure of our critical accounting policies and estimates with the Audit Committee of our Supervisory Board.

Revenue Recognition. We recognize revenue when four basic criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. Determination of criteria (3) and (4) could require management's judgments regarding the fixed nature of the fee charged for services rendered and products delivered and the collectability of those fees. While the majority of our sales agreements contain standard terms and conditions, we do enter into agreements that contain multiple elements or non-standard terms and conditions. Sometimes interpretation of the sales agreement or contract for multiple-element arrangements is complex in determining whether there is more than one unit of accounting and if so, how and when revenue should be recognized for each element is subject to certain estimates or assumptions. We record revenue as the separate elements are delivered to the customer if the delivered item has value on a stand-alone basis and delivery or performance of the undelivered item is probable and substantially in our control. Revenue is allocated according to the relative selling price method. Should changes in conditions cause management to determine that these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected.

Share-Based Compensation. Our stock plan, the QIAGEN N.V. 2014 Stock Plan (the Plan), allows for the granting of stock rights, incentive stock options, as well as for non-qualified options, stock grants and stock-based awards. We grant performance-based stock units subject to performance periods of one-year up to three years. Thus the estimates of performance achieved during the performance period may be subject to significant changes from period to period as the performance is completed. While we have not granted stock options since 2013, in the past we used the Black-Scholes-Merton valuation model for estimating the fair value of our stock option grants. Option valuation models, including Black-Scholes-Merton, require the input of highly subjective assumptions, including the risk-free rate of interest, expected dividend yield, expected volatility, and the expected life of the award. Changes in the assumptions used can materially affect the grant date fair value of an award.

Income Taxes. Calculation of our tax provision is complex due to our international operations and the multiple taxing jurisdictions in which we operate. Some of our deferred tax assets relate to net operating losses (NOL). The utilization of NOLs is not assured and is dependent on generating sufficient taxable income in the future. Although management believes it is more likely than not that we will generate sufficient taxable income to utilize substantially all NOL carryforwards, evaluating the

NOLs related to our newer subsidiaries requires us to make estimates that we believe are reasonable, but may also be highly uncertain given that we do not have direct experience with these subsidiaries or their products. Thus the estimates may be subject to significant changes from period to period as we gain that experience. To the extent that our estimates of future taxable income are insufficient to utilize all available NOLs, a valuation allowance will be recorded in the provision for income taxes in the period the determination is made, and the deferred tax assets will be reduced by this amount, which could be material. In the event that actual circumstances differ from management's estimates, or to the extent that these estimates are adjusted in the future, any changes to the valuation allowance could materially impact our financial position and results of operations.

Investments. We have equity investments accounted for under the cost method. We periodically review the carrying value of these investments for permanent impairment, considering factors such as the most recent stock transactions, book values from the most recent financial statements, and forecasts and expectations of the investee. Estimating the fair value of these nonmarketable equity investments in biotech companies is inherently subjective, and if actual events differ from management's assumptions, it could require a write-down of the investment that could materially impact our financial position and results of operations.

In addition, generally accepted accounting principles require different methods of accounting for an investment depending on the level of influence that we exert. Assessing the level of influence involves subjective judgments. If management's assumptions with respect to its level of influence differ in future periods and we therefore have to account for these investments under a method other than the cost method, it could have a material impact to our financial statements.

Variable Interest Entities. We have made strategic investments in certain companies as more fully described in Note 10 to the Consolidated Financial Statements, some of which are variable interest entities. FASB ASC Topic 810 requires a company to consolidate a variable interest entity in which it holds a variable interest if it is designated as the primary beneficiary of that entity even if the company does not have a majority of voting interests. A variable interest entity is generally defined as an entity with insufficient equity to finance its activities or where the owners of the entity lack the risk and rewards of ownership. Assessing the requirements of ASC Topic 810 involves subjective judgments. If management's assumptions with respect to the criteria differ in future periods, and we therefore have to account for these investments under a different method, it could have a material impact on our financial statements.

Goodwill and Other Intangible Assets. We assess goodwill for impairment at least annually in the absence of an indicator of possible impairment and immediately upon an indicator of possible impairment. Goodwill is deemed to be impaired if we determine that the carrying value of our reporting unit is more than the fair value. Due to the numerous variables associated with our judgments and assumptions relating to the valuation of reporting units and the effects of changes in circumstances affecting these valuations, both the precision and reliability of the resulting estimates are subject to uncertainty. As additional information becomes known, we may change our estimates.

In the fourth quarter of 2016, we performed our annual impairment assessment of goodwill (using data as of October 1, 2016). We performed our goodwill impairment testing on a single reporting unit basis which is consistent with our reporting structure. In testing for potential impairment, we have the option to first assess qualitative factors to determine whether it is more likely than not that the fair value of our single reporting operating unit is less than its carrying amount as a basis for determining whether it is necessary to perform the two-step goodwill impairment test. If it is determined that it is more likely than not that the fair value is less than the carrying amount, or if we opt not to perform a qualitative assessment, then the two-step goodwill impairment test will be performed. For 2016, we measured the estimated fair value of our business based upon discounted future operating cash flows using a discount rate reflecting our estimated average cost of funds. Differences in assumptions used in projecting future operating cash flows and cost of funds could have a significant impact on the determination of impairment amounts. In estimating future cash flows, we used our internal budgets. Our budgets were based on recent sales data for existing products, planned timing of new product launches or capital projects, and customer commitments related to new and existing products. These budgets also included assumptions of future production volumes and pricing. Based on the sensitivity analysis performed, we determined that in the event that our estimates of projected future cash flows were too high by 10%, there would still be no impact on the reported value of goodwill. We concluded that no impairment existed at October 1, 2016 or through December 31, 2016.

Purchase Price Allocation. The purchase price allocation for acquisitions requires extensive use of accounting estimates and judgments to allocate the purchase price to the identifiable tangible and intangible assets acquired, including in-process research and development, and liabilities assumed based on their respective fair values. An acquisition may include contingent consideration as part of the purchase price. Contingent consideration is accounted for at fair value at the acquisition date with subsequent changes to the fair value being recognized in earnings. Additionally, we must determine whether an acquired entity is considered to be a business or a set of net assets, because a portion of the purchase price can only be allocated to goodwill in a business combination.

We have made several acquisitions in recent years. The purchase prices for the acquisitions were allocated to tangible and intangible assets acquired and liabilities assumed based on their estimated fair values at the acquisition dates. We engaged an

independent third-party valuation firm to assist us in determining the estimated fair values of in-process research and development and identifiable intangible assets. Such a valuation requires significant estimates and assumptions, including but not limited to determining the timing and estimated costs to complete the in-process projects, projecting regulatory approvals, estimating future cash flows, and developing appropriate discount rates. We believe the estimated fair values of contingent consideration and assets acquired and liabilities assumed are based on reasonable assumptions. However, the fair value estimates for the purchase price allocations may change during the allowable allocation period, which is up to one year from the acquisition dates, if additional information becomes available.

Fair Value Measurements. We have categorized our assets and liabilities that are measured at fair value, based on the priority of the inputs to the valuation techniques, in a three-level fair value hierarchy: Level 1 - using quoted prices in active markets for identical assets or liabilities; Level 2 - using observable inputs other than quoted prices; and Level 3 – using unobservable inputs. We primarily apply the market approach for recurring fair value measurements, maximize our use of observable inputs and minimize our use of unobservable inputs. We utilize the mid-point price between bid and ask prices for valuing the majority of our assets and liabilities measured and reported at fair value. In addition to using market data, we make assumptions in valuing assets and liabilities, including assumptions about risk and the risks inherent in the inputs to the valuation technique.

Certain of our derivative instruments, which are classified in Level 2 of the fair value hierarchy, are valued using industry-standard models that consider various inputs, including time value, volatility factors, and current market and contractual prices for the underlying instruments, as well as other relevant economic measures. Substantially all of these inputs are observable in the marketplace throughout the full term of the instrument, can be derived from observable data or are supported by observable prices at which transactions are executed in the marketplace.

Certain of our acquisitions involve contingent consideration, the payment of which is contingent on the occurrence of future events. Contingent consideration is classified in Level 3 of the fair value hierarchy and is initially recognized at fair value as a cost of the acquisition. After the acquisition, the contingent consideration liability is remeasured each reporting period. The fair value of contingent consideration is measured predominantly on unobservable inputs such as assumptions about the likelihood of achieving specified milestone criteria, projections of future financial performance, assumed discount rates and assumed weightings applied to potential scenarios in deriving a probability weighted fair value. Significant judgment is used in developing these estimates and assumptions both at the acquisition date and in subsequent periods. If actual events differ from management's estimates, or to the extent these estimates are adjusted in the future, our financial condition or results of operations could be affected in the period of any change.

For other fair value measurements, we generally use an income approach to measure fair value when there is not a market observable price for an identical or similar asset or liability. This approach utilizes management's best assumptions regarding expectations of projected cash flows, and discounts the expected cash flows using a commensurate risk-adjusted discount rate.

The above listing is not intended to be a comprehensive list of all our accounting policies. In many cases, the accounting treatment of a particular transaction is specifically dictated by generally accepted accounting principles in the United States, with limited or no need for management's judgment. There are also areas in which management's judgment in selecting available alternatives may or may not produce a materially different result. See our audited consolidated financial statements and notes thereto in Item 18 of this Annual Report, containing a description of accounting policies and other disclosures required by generally accepted accounting principles in the United States.

Recent Authoritative Pronouncements

For information on recent accounting pronouncements impacting our business see Note 2 of the Notes to Consolidated Financial Statements included in Item 18.

Item 6. Directors, Senior Management and Employees

Managing Directors and Supervisory Directors are appointed annually for the period beginning on the date following the Annual General Meeting of our shareholders up to and including the date of the Annual General Meeting held in the following year.

Our Supervisory Directors and Managing Directors for the year ended December 31, 2016 and their ages as of January 31, 2017, are as follows:

Managing Directors:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Peer M. Schatz	51	Managing Director, Chief Executive Officer
Roland Sackers	48	Managing Director, Chief Financial Officer

Supervisory Directors:

<u>Name</u> ⁽¹⁾	<u>Age</u>	<u>Position</u>
Stéphane Bancel	44	Supervisory Director, Member of the Compensation Committee, Audit Committee and Science and Technology Committee
Dr. Metin Colpan	62	Supervisory Director, Chairman of the Science and Technology Committee and Member of the Selection and Appointment Committee
Prof. Dr. Manfred Karobath	76	Chairman of the Supervisory Board, Supervisory Director, Chairman of the Selection and Appointment Committee, Member of the Compensation Committee, and Member of the Science and Technology Committee
Prof. Dr. Ross L. Levine	45	Supervisory Director and Member of the Science and Technology Committee
Prof. Dr. Elaine Mardis	54	Supervisory Director and Member of the Science and Technology Committee
Lawrence A. Rosen	59	Supervisory Director and Chairman of the Audit Committee
Elizabeth E. Tallett	67	Supervisory Director, Chairwoman of the Compensation Committee, Member of the Audit Committee and Member of the Selection and Appointment Committee

(1) Dr. Werner Brandt was a member of the Supervisory Board since 2007 and did not stand for re-election at the Company's Annual General Meeting in June 2016.

The following is a brief summary of the background of each of the Supervisory Directors and Managing Directors. References to “QIAGEN” and the “Company” in relation to periods prior to April 29, 1996 mean QIAGEN GmbH and its consolidated subsidiaries:

Managing Directors

Peer M. Schatz, 51, joined QIAGEN in 1993, when the Company had just 30 employees and revenues of approximately \$2 million, and has been Chief Executive Officer since January 1, 2004. He was Chief Financial Officer between 1993 and 2003 and became a member of the Managing Board in 1998. Mr. Schatz was previously a partner in a private management buyout group in Switzerland, worked in finance and systems positions in Sandoz, Ltd. and Computerland AG, and participated in the founding of start-up companies in the computer and software trading industry in Europe and the United States. Mr. Schatz graduated from the University of St. Gallen, Switzerland, with a Master's degree in Finance in 1989 and obtained an M.B.A. in Finance from the University of Chicago Graduate School of Business in 1991. Mr. Schatz served as a member of the German Corporate Governance Commission from 2002 to 2012. He is Managing Director of PS Capital Management GmbH. He is a board member of AdvaMedDx, an advocacy dedicated to issues facing the in vitro diagnostics industry in the United States and Europe, and ALDA (the Analytical, Life Science and Diagnostics Association), a trade association of developers and suppliers in these fields.

Roland Sackers, 48, joined the Company in 1999 as Vice President Finance and has been Chief Financial Officer since 2004. In 2006, Mr. Sackers became a member of the Managing Board. Between 1995 and 1999, he served as an auditor with Arthur Andersen Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft. Mr. Sackers earned his Master Degree Business Administration (Diplom-Kaufmann) from University of Münster, Germany. He is a former member of the Supervisory Board and Audit Committee of IBS AG and a former member of the board of directors of Operon Biotechnologies, Inc. Mr. Sackers is a board member of the industry association BIO Deutschland. He is also a non-executive director and chair of the audit committee of Immunodiagnostic Systems Holding PLC (IDS), a leading producer of immunological tests for research and diagnostic applications publicly listed in the United Kingdom.

Supervisory Directors

Stéphane Bancel, 44, joined the Company's Supervisory Board as well as the Compensation Committee in 2013 and joined the Audit Committee and Science and Technology Committee in 2014. He is Chief Executive Officer of Moderna Therapeutics, Inc., a clinical-stage biotechnology company based in Cambridge, Massachusetts, which is advancing multiple drug development programs involving messenger RNA therapeutics. Before joining Moderna, Mr. Bancel served for five years as

Chief Executive Officer of the French diagnostics company bioMérieux SA. Prior to bioMérieux, he was Managing Director of Eli Lilly in Belgium and Executive Director of Global Manufacturing Strategy and Supply Chain at Eli Lilly in Indianapolis, Indiana, after having started at Lilly in Great Britain. Before joining Eli Lilly, Mr. Bancel served as Asia-Pacific Sales and Marketing Director for bioMérieux while based in Tokyo, Japan. He holds a Master of Engineering degree from École Centrale Paris (ECP), a Master of Science in Chemical Engineering from the University of Minnesota and an M.B.A. from Harvard Business School.

Dr. Metin Colpan, 62, is a co-founder of QIAGEN and was the Company's Chief Executive Officer and a Managing Director from 1985 through 2003. Dr. Colpan has been a member of the Supervisory Board since 2004 and has served as Chairman of the Science and Technology Committee since 2014. He has been a member of the Selection and Appointment Committee since 2015. Dr. Colpan obtained his Ph.D. and M.S. in Organic Chemistry and Chemical Engineering from the Darmstadt Institute of Technology in 1983. Prior to founding QIAGEN, Dr. Colpan was an Assistant Investigator at the Institute for Biophysics at the University of Düsseldorf. Dr. Colpan has had wide experience in separation techniques and in the separation and purification of nucleic acids in particular, and has filed many patents in the field. Dr. Colpan also serves as a Supervisory Board member of Qalovis Farmer Automatic Energy GmbH, Laer, Germany. Dr. Colpan previously served as a Supervisory Board member of Ingenium Pharmaceuticals AG, GenPat77 Pharmacogenetics AG, GPC Biotech AG and Morphosys AG, each in Munich, Germany.

Professor Dr. Manfred Karobath, 76, has been a member of the Supervisory Board since 2000 and joined the Compensation Committee in 2005. In 2016, Prof. Karobath was appointed as Chairman of the Supervisory Board. He has served as a member of our Science and Technology Committee from 2014 to 2016 and joined the Compensation Committee in 2016. He is also the Chairman of the Selection and Appointment Committee. Prof. Dr. Karobath studied medicine, and from 1967 to 1980 he worked first in the Dept. of Biochemistry of the University of Vienna and, after a stage as postdoctoral fellow, he joined the Dept. of Psychiatry where he became Professor of Biological Psychiatry. In 1980, he joined Sandoz Pharma in Basel, first in drug discovery, and later becoming Senior Vice President and head of R&D. In 1992, Prof. Dr. Karobath joined Rhone Poulenc Rorer (RPR) as President of R&D and Executive Vice President, and later, he became a member of the boards of directors of RPR, Pasteur Mérieux Connought, Centeon and Rhone Poulenc Pharma. He has received several scientific awards and has published 92 scientific papers.

Professor Dr. Ross L. Levine, 45, joined the Supervisory Board and its Science and Technology Committee in 2016. He is a physician-scientist focused on researching and treating blood and bone marrow cancers as the Laurence Joseph Dineen Chair in Leukemia Research, the Director of the Center for Hematologic Malignancies, and an Attending Physician at Memorial Sloan Kettering Cancer Center, as well as Professor of Medicine at Weill Cornell Medical College. He leads a research lab investigating genetics and targeted therapies in myeloid malignancies and is interested in application of next-generation sequencing technology in the practice of medicine in hematologic cancers. He trained in internal medicine at Massachusetts General Hospital and in hematology-oncology at the Dana-Farber Cancer Institute, earning board certification in these specialties. He received his M.D. from the Johns Hopkins University School of Medicine and his A.B. degree from Harvard College.

Professor Dr. Elaine Mardis, 54, joined the Company's Supervisory Board and its Science and Technology Committee in 2014. Dr. Mardis is the Co-Executive Director of the Institute for Genomic Medicine at Nationwide Children's Hospital in Columbus, OH. She also is Professor of Pediatrics at the Ohio State University College of Medicine. Prof. Dr. Mardis has research interests in the application of genomic technologies to improving our understanding of human disease, and toward improving the precision of medical diagnosis, prognosis and treatment. Prof. Dr. Mardis is the former Robert E. and Louise F. Dunn Distinguished Professor of Medicine at Washington University School of Medicine in St. Louis, MO, where she was on the faculty for 22 years. As Co-Director of the McDonnell Genome Institute, she devised methods and automation that contributed to the Human Genome Project and has since played key roles in the 1000 Genomes Project, The Cancer Genome Atlas, and the Pediatric Cancer Genome Project. Prior to joining the Washington University faculty, she was a senior research scientist at BioRad Laboratories in Hercules, CA. Prof. Dr. Mardis is a board member of the American Association for Cancer Research, and has scientific advisory roles at the Regeneron Genomics Center, Caperna LLC, and Interpreta LLC. She also serves the U.S. government as a scientific advisor to the Veteran's Administration for the Million Veterans Program. Prof. Dr. Mardis received her Bachelor of Science degree in Zoology in 1984 and her Ph.D. in Chemistry and Biochemistry in 1989, both from the University of Oklahoma.

Lawrence A. Rosen, 59, joined the Company's Supervisory Board as well as the Audit Committee in 2013 and has served as the committee's chairman since 2014. Mr. Rosen was a member of the Board of Management and Chief Financial Officer of Deutsche Post DHL until September 2016. Holding this position since 2009, Mr. Rosen was in charge of controlling, corporate accounting and reporting, investor relations, corporate finance, corporate internal audit and security, taxes, as well as the group's global business services. Prior to joining Deutsche Post DHL, Mr. Rosen served as Chief Financial Officer of Fresenius Medical Care AG & Co. KGaA in Germany from 2003 to 2009. Prior to that, he was Senior Vice President and Treasurer for Aventis SA in Strasbourg, France. Between 1984 and 2000, Mr. Rosen held different positions at the Aventis predecessor

companies Hoechst AG and American Hoechst/Hoechst Celanese Inc. Mr. Rosen, who is a U.S. citizen, holds a Bachelor in Business Administration from the State University of New York and an M.B.A. from the University of Michigan.

Elizabeth E. Tallett, 67, joined the Company's Supervisory Board as well as the Audit Committee and Compensation Committee in 2011 and since 2016 has served as Chairwoman of the Compensation Committee. Ms. Tallett was a Principal of Hunter Partners, LLC, a management company for early to mid-stage pharmaceutical, biotechnology and medical device companies, from 2002 until February 2015. Ms. Tallett continues to consult with early stage health care companies. Her senior management experience includes President and CEO of Transcell Technologies Inc., President of Centocor Pharmaceuticals, member of the Parke-Davis Executive Committee, and Director of Worldwide Strategic Planning for Warner-Lambert Company. Ms. Tallett graduated from Nottingham University, England with dual Bachelor's degrees with honors in mathematics and economics. She is a member of the board of directors of Principal Financial Group, Inc. (where she is currently the Lead Director), Anthem, Inc. and Meredith Corp. She is a former director of Varian, Inc., Immunicon, Inc., Varian Semiconductor Equipment Associates, Inc., Coventry Health Care, Inc. and IntegraMed America, Inc. Ms. Tallett was a founding board member of the Biotechnology Council of New Jersey and is a Trustee of Solebury School in Pennsylvania.

Dr. Werner Brandt, 63, joined the Company's Supervisory Board in 2007 and was Chairman of the Supervisory Board until June 2016. He was also Chairman of the Selection and Appointment Committee, and he served from 2007 to 2014 as Chairman of the Audit Committee. Dr. Brandt was a member of the Executive Board and the Chief Financial Officer of SAP SE from 2001 until his retirement from SAP in 2014. For some years from 2010 onwards he also held the position of Labor Relations Director. From 1999 to 2001, he was a member of the Executive Board and Chief Financial Officer of the German-American healthcare company, Fresenius Medical Care AG, where he also served as Labor Relations Director. From 1992 to 1999, Dr. Brandt was a member of the Managing Board of Baxter Deutschland GmbH and Vice President for European Operations. Dr. Brandt began his career in 1981 at the former Price Waterhouse GmbH (now PricewaterhouseCoopers) in Frankfurt. Dr. Brandt completed his doctorate in business administration from the Technical University of Darmstadt, Germany in 1991, after studying business administration at the University of Nuremberg-Erlangen, Germany from 1976 to 1981. During his time on the Supervisory Board, Dr. Brandt was also currently Chairman of the Supervisory Board of ProSiebenSat.1 Media AG, a member of the Supervisory Board of Deutsche Lufthansa AG, a member of the Supervisory Board of RWE AG and a member of the Supervisory Board of OSRAM Licht AG (where he is Chairman of the Audit Committee). Dr. Werner Brandt did not stand for re-election at the Company's Annual General Meeting in June 2016.

Compensation of Managing Board Members and Supervisory Directors

Remuneration policy

The objective of our remuneration policy is to attract and retain the talented, highly qualified international leaders and skilled individuals, who enable QIAGEN to achieve its short and long-term strategic initiatives and operational excellence. Our remuneration policy aligns remuneration with individual performance, corporate performance and fosters sustainable growth and long-term value creation in the context of QIAGEN's social responsibility and stakeholders' interest.

The remuneration policy and overall remuneration levels are benchmarked regularly, against a selected group of companies and key markets in which QIAGEN operates, to ensure overall competitiveness. QIAGEN participates in various compensation benchmarking surveys that provide information on the level, as well as the structure, of compensation awarded by various companies and industries for a broad range of positions around the world. The companies in the peer group are selected on the basis of market capitalization, competitors for talent, similar complexity and international spread, operating in similar industries.

The performance of the Managing Board members is measured annually against a written set of goals. The remuneration of the Managing Board members is linked to the achievement of QIAGEN's strategic and financial goals. To ensure that remuneration is linked to performance, a significant proportion of the remuneration package is variable and contingent on performance of the individual and the company. These goals are set at ambitious levels each year to motivate and drive performance, with a focus on achieving both long-term strategic initiatives and short-term objectives based on the annual operative planning. Performance metrics used for these goals include the achievement of financial and non-financial targets.

The remuneration package of the Managing Board members consists of a combination of base salary, short term variable cash award and several elements of long term incentives (together, 'total direct compensation'). In addition, the members of the Managing Board receive a pension arrangement and other benefits that are standard in our industry, such as a company car.

The total target remuneration package of the Managing Board members is appropriately set against a variety of factors which includes external and internal equity, experience, complexity of the position, scope and responsibilities. We aim to provide the members of the Managing Board a total direct compensation at market median level.

The structure of the remuneration package for the Managing Board is designed to balance short-term operational excellence with long-term sustainable value creation while taking into account the interests of its stakeholders. As such a significant part of the total remuneration of the Managing Board members consist of variable remuneration which can differ substantially from

year to year depending on our corporate results and individual performance and may include equity-based compensation which may be subject to vesting conditions over a period of 10 years.

The remuneration policies for the Managing Board and for other senior management members of QIAGEN are generally aligned and consistent.

Managing Board compensation

The compensation granted to the members of the Managing Board in 2016 consisted of a fixed salary and variable components, with the significant majority of compensation awarded in the form of QIAGEN stock units that are restricted for a long multi-year period to align management with the interests of shareholders and other stakeholders. Variable compensation included annual payments linked to business performance (annual bonus), as well as long-term equity incentives that were awarded based on individual performance.

In 2014, the General Meeting of Shareholders approved a new remuneration policy for the Managing Board which provides that future annual regular equity-based compensation grants to members of the Managing Board will primarily consist of performance stock units. Grants of stock options and restricted stock units which are based on time vesting only shall no longer be granted on a regular basis and shall be reserved for use as special equity incentive rewards in certain situations.

Stock options granted to the Managing Board members must have an exercise price that is higher than the market price at the time of grant. Restricted Stock Units granted to the Managing Board members, vest over a 10-year period. Performance Stock Units are subject to long-term vesting periods and contingent upon the achievement of several financial goals over a multi-year period.

In 2013, QIAGEN issued Performance Stock Units that are directly linked with the future achievement of QIAGEN's five-year business plan as well as implemented mandatory minimum holding levels of QIAGEN shares for a group of approximately 50 managers. This program is referred to as the "Commitment Program" The financial targets for vesting of these Performance Stock Units were based on three-year goals as defined within QIAGEN's five-year business plan covering the period from 2014 until the end of 2016. The targets for vesting were set and approved by the Supervisory Board, and they consist of specific quantitative goals for net sales, earnings before interest and taxes (EBIT), return on invested capital (ROIC) and QIAGEN Value Added (QVA), a steering metric that measures the ability of QIAGEN to generate returns and exceed its cost of capital. Achievement of these 2013 Performance Stock Units was finalized as of December 31, 2016 at 20%. In 2016, a new grant of Performance Stock Units with mandatory minimum holding levels of QIAGEN shares was made under the Commitment Program linked to achievement of a two-year plan covering 2017 and 2018 including quantitative goals for net sales, EBIT, QVA and share price development as compared to peer companies.

For the year ended December 31, 2016, the Managing Board members received the following compensation:

Name	Annual Compensation				Long-Term Compensation⁽⁴⁾	
	Fixed Salary	Variable Cash Bonus⁽¹⁾	Other⁽⁵⁾	Total	Defined Contribution Benefit Plan	Performance Stock Units Granted^(2,3)
Managing Board						
Peer M. Schatz	\$ 1,146,000	165,000	12,000	\$ 1,323,000	\$ 72,000	791,869
Roland Sackers	\$ 514,000	53,000	37,000	\$ 604,000	\$ 74,000	229,383

- (1) The Variable Cash Bonus amount does not include values which were converted to equity-based compensation.
- (2) The Performance Stock Units Granted amount includes the number of Performance Stock Units granted to each Managing Board member at his election in lieu of the value of the cash bonus earned by such Managing Board member in 2016. These performance stock units vest over two years from the grant date. In 2016, Mr. Schatz received a grant of 27,677 performance stock units and Mr. Sackers received a grant of 8,884 performance stock units. These 2016 performance grants were achieved at 90% of the targeted vesting amount.
- (3) The Performance Stock Units Granted amount includes the number of Performance Stock Units granted to each Managing Board member under the Company's Commitment Program. In 2016, Mr. Schatz received a grant of 460,220 performance stock units and Mr. Sackers received a grant of 144,809 performance stock units.
- (4) In lieu of cash bonus, each Managing Board member elected to receive the value earned in 2015 in restricted stock units which vest over two years from the grant date. In 2016, Mr. Schatz received a grant of 21,081 restricted stock units and Mr. Sackers received a grant of 7,153 restricted stock units.

- (5) Amounts include, among others, car lease and reimbursed personal expenses such as tax consulting. We also occasionally reimburse our Managing Directors' personal expenses related to attending out-of-town meetings but not directly related to their attendance. Amounts do not include the reimbursement of certain expenses relating to travel incurred at the request of QIAGEN, other reimbursements or payments that in total did not exceed \$10,000 or tax amounts paid by the Company to tax authorities in order to avoid double-taxation under multi-tax jurisdiction employment agreements.

Supervisory Board compensation

In early 2014, we conducted a board remuneration benchmark review of 36 peer companies of similar size and complexity in similar industries, including biotechnology, life science supplies, diagnostics and pharmaceuticals. Based on the results of this review, the Supervisory Board remuneration was aligned to the applicable market standards to reflect our nexus to the European Markets as a Dutch company as well as our U.S. focus as a NASDAQ listed company subject to U.S. regulations and the fact that three of the seven Supervisory Board members are residing in the United States.

The Supervisory Board compensation for 2016 consists of fixed retainer compensation and additional retainer amounts for Chairman and Vice Chairman. Annual remuneration of the Supervisory Board members is as follows:

Fee payable to the Chairman of the Supervisory Board	\$150,000
Fee payable to the Vice Chairman of the Supervisory Board	\$90,000
Fee payable to each member of the Supervisory Board	\$57,500
Additional compensation payable to members holding the following positions:	
Chairman of the Audit Committee	\$25,000
Chairman of the Compensation Committee	\$18,000
Chairman of the Selection and Appointment Committee and other board committees	\$12,000
Fee payable to each member of the Audit Committee	\$15,000
Fee payable to each member of the Compensation Committee	\$11,000
Fee payable to each member of the Selection and Appointment Committee and other board committees	\$6,000

Further, the Supervisory Board members will be reimbursed for tax consulting costs incurred in connection with the preparation of their tax returns up to an amount of €5,000 per person per fiscal year.

Supervisory board members also receive a variable component, in the form of share-based compensation. We did not pay any agency or advisory service fees to members of the Supervisory Board.

For the year ended December 31, 2016, the Supervisory Board members received the following compensation:

Name	Fixed Remuneration	Chairman/ Vice-Chairman Committee	Committee Membership	Total⁽²⁾	Restricted Stock Units
Supervisory Board					
Stéphane Bancel	\$ 57,500	—	32,000	\$ 89,500	10,742
Dr. Werner Brandt ⁽¹⁾	\$ 75,000	6,000	—	\$ 81,000	10,742
Dr. Metin Colpan	\$ 57,500	12,000	6,000	\$ 75,500	10,742
Prof. Dr. Manfred Karobath	\$ 120,000	15,000	14,500	\$ 149,500	10,742
Prof. Dr. Ross L. Levine	\$ 28,750	—	3,000	\$ 31,750	—
Prof. Dr. Elaine Mardis	\$ 57,500	—	6,000	\$ 63,500	10,742
Lawrence A. Rosen	\$ 57,500	25,000	—	\$ 82,500	10,742
Elizabeth E. Tallett	\$ 57,500	9,000	23,500	\$ 90,000	10,742

(1) Dr. Werner Brandt who was a member of the Supervisory Board since 2007 did not stand for re-election at the Company's Annual General Meeting in June 2016.

(2) Supervisory Directors are reimbursed for travel costs and for any value-added tax to be paid on their remuneration. These reimbursements are excluded from the amounts presented herein.

Committees of the Supervisory Board

The Supervisory Board has established an Audit Committee, a Compensation Committee, a Selection and Appointment Committee and a Science and Technology Committee from among its members and can establish other committees as deemed beneficial. The Supervisory Board has approved charters under which each of the committees operates. These charters are published on our website www.qiagen.com. The committees are comprised of the following members:

<u>Name of Supervisory Director</u> ⁽¹⁾	<u>Member of Audit Committee</u>	<u>Member of Compensation Committee</u>	<u>Member of Selection and Appointment Committee</u>	<u>Member of Science and Technology Committee</u>
Stéphane Bancel	•	•		•
Dr. Metin Colpan			•	• (Chairman)
Prof. Dr. Manfred Karobath		•	• (Chairman)	•
Prof. Dr. Ross L. Levine				•
Prof. Dr. Elaine Mardis				•
Lawrence A. Rosen	• (Chairman)			
Elizabeth E. Tallett	•	• (Chairwoman)	•	

(1) Dr. Werner Brandt served as the Chairman of the Selection and Appointment Committee until June 2016.

We believe that all of our Supervisory Directors meet the independence requirements set forth in the Dutch Corporate Governance Code (the Dutch Code). We further believe that all Supervisory Board Directors qualify as independent under the Marketplace Rules of the NASDAQ Stock Market. Pursuant to the NASDAQ rules, a majority of the Supervisory Directors must qualify as independent, as defined in the Rules.

Audit Committee

The Audit Committee currently consists of three members, Mr. Rosen (Chairman), Ms. Tallett and Mr. Bancel, and meets at least quarterly. The Audit Committee members are appointed by the Supervisory Board and serve for a term of one year. We believe that all members of our Audit Committee meet the independence requirements as set forth in Rule 10A-3 of the Securities Exchange Act of 1934, as amended, and the Marketplace Rules of the NASDAQ. The Board has designated Mr. Rosen as an “audit committee financial expert” as that term is defined in the United States Securities and Exchange Commission rules adopted pursuant to the Sarbanes-Oxley Act of 2002 and as defined in provisions III.3.2 and III.5.7 of the Dutch Code. The Audit Committee performs a self-evaluation of its activities on an annual basis.

The Audit Committee's primary duties and responsibilities include, among other things, to serve as an independent and objective party to monitor QIAGEN's accounting and financial reporting process and internal risk management, control and compliance systems. The Audit Committee also is directly responsible for proposing the external auditor to the Supervisory Board, which then proposes the appointment of the external auditor to the General Meeting. Further, the Audit Committee is responsible for the compensation and oversight of QIAGEN's external auditor and for providing an open avenue of communication among the external auditor as well as the Management Board and the Supervisory Board. Our Internal Audit department operates under the direct responsibility of the Audit Committee. Further, the Audit Committee is responsible to establish procedures to allow for the confidential and or anonymous submission by employees of concerns. Additionally, this includes the receipt, retention and treatment of submissions received regarding accounting, internal accounting controls, or auditing matters. The Audit Committee discusses our financial accounting and reporting principles and policies and the adequacy of our internal accounting, financial and operating controls and procedures with the external auditor and management; considers and approves any recommendations regarding changes to our accounting policies and processes; reviews with management and the external auditor our quarterly earnings reports prior to their release to the press; and reviews the quarterly and annual reports (reported on Forms 6-K and 20-F) to be furnished to or filed with the Securities and Exchange Commission and the Deutsche Boerse. The Audit Committee met seven times in 2016 and met with the external auditor excluding members of the Managing Board in December 2016. The Audit Committee reviews major financial risk exposures, pre-approves related-party transactions, and reviews any legal matter including compliance topics that could have a significant impact on the financial statements.

Compensation Committee

The Compensation Committee's primary duties and responsibilities include, among other things, the preparation of a proposal for the Supervisory Board concerning the Remuneration Policy for the Managing Board to be adopted by the General Meeting, the preparation of a proposal concerning the individual compensation of Managing Board members to be adopted by the Supervisory Board and the preparation of the Remuneration Report on compensation policies for the Managing Board to be adopted by the Supervisory Board. The Compensation Committee reviews and approves all equity-based compensation, reviews and approves the annual salaries, bonuses and other benefits of executive officers, and reviews general policies relating to employee compensation and benefits. The Remuneration Report reviews the implementation of the Remuneration Policy in the most recent year and provides an outline of the Remuneration Policy for the future. The Compensation Committee currently consists of three members, Ms. Tallett (Chairwoman), Professor Karobath and Mr. Bancel. Members are appointed by the Supervisory Board and serve for a term of one year. The Compensation Committee met seven times in 2016.

Selection and Appointment Committee

The Selection and Appointment (Nomination) Committee is primarily responsible for the preparation of selection criteria and appointment procedures for members of the Supervisory Board and Managing Board as well as the periodic evaluation of the scope and composition of the Managing Board and the Supervisory Board, including the profile of the Supervisory Board. Additionally, the Selection and Appointment Committee periodically evaluates the functioning of individual members of the Managing Board and Supervisory Board, reporting these results to our Supervisory Board. It also proposes the (re-) appointments of members of our Managing Board and Supervisory Board and supervises the policy of our Managing Board in relation to selection and appointment criteria for senior management. Current members of the Selection and Appointment Committee are Professor Karobath (Chairman), Dr. Colpan and Ms. Tallett. Members are appointed by the Supervisory Board and serve for a one-year term. The Selection and Appointment Committee met one time in 2016.

Science and Technology Committee

The Science and Technology Committee is primarily responsible for reviewing and monitoring research and development projects, programs, budgets, infrastructure management and overseeing the management risks related to the Company's portfolio and information technology platforms. The Science and Technology Committee provides understanding, clarification and validation of the fundamental technical basis of the Company's businesses in order to enable the Supervisory Board to make informed, strategic business decisions and vote on related matters, and to guide the Managing Board to ensure that powerful, global, world-class science is developed, practiced and leveraged throughout the Company to create shareholder value. The current members of the Science and Technology Committee are Dr. Colpan (Chairman), Professor Karobath, Professor Levine, Mr. Bancel and Professor Mardis. Members are appointed by the Supervisory Board and serve for a term of one year. The Science and Technology Committee met four times in 2016.

Share Ownership

The following table sets forth certain information as of January 31, 2017 concerning the ownership of Common Shares by our directors and officers. In preparing the following table, we have relied on information furnished by such persons.

<u>Name and Country of Residence</u>	<u>Shares Beneficially Owned⁽¹⁾</u>	
	<u>Number⁽²⁾</u>	<u>Percent Ownership</u>
Peer M. Schatz, Germany	2,046,821.92 (3)	0.91%
Roland Sackers, Germany	19,258.00 (4)	*
Stéphane Bancel, United States	— (5)	—
Dr. Metin Colpan, Germany	3,523,427.00 (6)	1.56%
Prof. Dr. Manfred Karobath, Austria	17,986.00 (7)	*
Prof. Dr. Ross L. Levine, United States	—	—
Prof. Dr. Elaine Mardis, United States	—	—
Lawrence A. Rosen, Germany	— (8)	—
Elizabeth Tallett, United States	4,854.00 (9)	*

* Indicates that the person beneficially owns less than 0.5% of the Common Shares issued and outstanding as of January 31, 2017.

- (1) The number of Common Shares outstanding as of January 31, 2017 was 225,882,186.67. The persons and entities named in the table have sole voting and investment power with respect to all shares shown as beneficially owned by them and have the same voting rights as shareholders with respect to Common Shares.
- (2) Does not include Common Shares subject to options or awards held by such persons at January 31, 2017. See footnotes below for information regarding options now exercisable or that could become exercisable within 60 days of the date of this table.
- (3) Does not include 731,158 shares issuable upon the exercise of options now exercisable having exercise prices ranging from \$15.59 to \$22.43 per share. Options expire in increments during the period between February 2018 and February 2023. Does not include 1,195,512 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (4) Does not include 196,121 shares issuable upon the exercise of options now exercisable having exercise prices ranging from \$15.59 to \$22.43 per share. Options expire in increments during the period between February 2018 and February 2023. Does not include 143,644 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (5) Does not include 4,000 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (6) Does not include 9,835 shares issuable upon the exercise of options now exercisable having exercise prices ranging from \$15.59 to \$22.43 per share. Options expire in increments during the period between April 2017 and February 2022. Includes 2,741,579 shares held by CC Verwaltungs GmbH, of which Dr. Colpan is the sole stockholder and 770,370 shares held by Colpan GbR. Does not include 6,716 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (7) Does not include 9,835 shares issuable upon the exercise of options now exercisable having exercise prices ranging from \$15.59 to \$22.43 per share. Options expire in increments during the period between April 2017 and February 2022. Does not include 6,716 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (8) Does not include 4,000 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.
- (9) Does not include 1,563 shares issuable upon the exercise of options now exercisable having exercise prices of \$15.59 per share. Options expire on February 2022. Does not include 6,716 shares issuable upon the release of unvested stock awards that could become releasable within 60 days from the date of this table.

The following table sets forth the options of our officers and directors as of January 31, 2017:

Name	Total Vested Options	Expiration Dates	Exercise Prices
Peer M. Schatz	731,158	2/28/2018 to 2/28/2023	\$15.59 to \$22.43
Roland Sackers	196,121	2/28/2018 to 2/28/2023	\$15.59 to \$22.43
Stéphane Bancel	—	—	—
Dr. Metin Colpan	9,835	4/25/2017 to 2/28/2022	\$15.59 to \$22.43
Prof. Dr. Manfred Karobath	9,835	4/25/2017 to 2/28/2022	\$15.59 to \$22.43
Prof. Dr. Elaine Mardis	—	—	—
Lawrence A. Rosen	—	—	—
Elizabeth E. Tallett	1,563	2/28/2022	\$15.59

Employees

As of December 31, 2016, we employed 4,684 individuals, of which 21% worked in research and development, 41% in sales, 21% in production/logistics, 7% in marketing and 10% in administration.

Region	Research & Development	Sales	Production	Marketing	Administration	Total
Americas	197	634	261	75	93	1,260
Europe, Middle East & Africa	753	694	622	158	316	2,543
Asia Pacific & Rest of World	45	581	113	75	67	881
December 31, 2016	995	1,909	996	308	476	4,684

At December 31, 2015 and 2014, we employed 4,559 and 4,339 individuals, respectively. Management believes that its relations with regional labor unions and employees are good.

Stock Plans

We adopted the QIAGEN N.V. Amended and Restated 2005 Stock Plan (the 2005 Plan) which was approved by our shareholders on June 14, 2005. The 2005 Plan expired by its terms in April 2015 and no further awards will be granted under the 2005 Plan. On June 25, 2014, our shareholders approved the QIAGEN N.V. 2014 Stock Plan (the 2014 Plan), which replaced the 2005 Plan in April 2015. An aggregate of 9.1 million Common Shares were reserved for issuance pursuant to the 2014 Plan, subject to certain antidilution adjustments. We issue Treasury Shares to satisfy option exercises and award releases and had approximately 17.9 million Common Shares reserved and available for issuance under the 2005 and 2014 Plans at December 31, 2016.

Pursuant to the 2014 Plan, stock rights, which include options to purchase our Common Shares, stock grants and stock-based awards, may be granted to employees and consultants of QIAGEN and its subsidiaries and to Supervisory Directors. Options granted pursuant to the 2014 Plan may either be incentive stock options within the meaning of Section 422 of the United States Internal Revenue Code of 1986, as amended (the Code), or non-qualified stock options. Options granted to members of the Supervisory Board and the Managing Board must have an exercise price that is higher than the market price at the time of grant. Generally, each of the options has a term of ten years, subject to earlier termination in the event of death, disability or other termination of employment. The vesting and exercisability of certain stock rights will be accelerated in the event of a Change of Control, as defined in the agreements under the 2014 Plan.

The Plan is administered by the Compensation Committee of the Supervisory Board, which selects participants from among eligible employees, consultants and directors and determines the number of shares subject to the stock-based award, the length of time the award will remain outstanding, the manner and time of the award's vesting, the price per share subject to the award and other terms and conditions of the award consistent with the Plan. The Compensation Committee's decisions are subject to the approval of the Supervisory Board.

The Compensation Committee has the power, subject to Supervisory Board approval, to interpret the plans and to adopt such rules and regulations (including the adoption of "sub plans" applicable to participants in specified jurisdictions) as it may deem necessary or appropriate. The Compensation Committee or the Supervisory Board may at any time amend the plans in any

respect, subject to Supervisory Board approval, and except that (i) no amendment that would adversely affect the rights of any participant under any option previously granted may be made without such participant's consent and (ii) no amendment shall be effective prior to shareholder approval to the extent such approval is required to ensure favorable tax treatment for incentive stock options or to ensure compliance with Rule 16b-3 under the United States Securities Exchange Act of 1934, as amended (the Exchange Act) at such times as any participants are subject to Section 16 of the Exchange Act.

As of January 31, 2017, there were 1.4 million options outstanding with exercise prices ranging between \$14.26 and \$23.16 and expiring between April 25, 2017 and October 31, 2023. The exercise price of the options is the fair market value of the Common Shares as of the date of grant or a premium above fair market value. Additionally, there were 10.2 million stock unit awards outstanding as of January 31, 2017. These awards will be released between February 15, 2017 and October 31, 2026. As of January 31, 2017, options to purchase 0.9 million Common Shares and 4.5 million stock unit awards were held by the officers and directors of QIAGEN, as a group.

Item 7. Major Shareholders and Related Party Transactions

The following table sets forth certain information as of December 31, 2016, concerning the ownership of Common Shares of each holder of greater than 5% ownership. None of these holders have any different voting rights than other holders of our Common Shares.

<u>Name and Country of Residence</u>	<u>Shares Beneficially Owned</u>	
	<u>Number</u>	<u>Percent Ownership ⁽¹⁾</u>
PRIMECAP Management Company, United States	19,143,036 (2)	8.16%
BlackRock, Inc., United States	19,433,223 (3)	8.28%
Franklin Resources, Inc., United States	25,705,128 (4)	10.96%

- (1) The percentage ownership was calculated based on 234,560,586 Common Shares outstanding as of December 31, 2016.
- (2) Of the 19,143,036 shares attributed to PRIMECAP Management Company, it has sole voting power over 9,238,709 and sole dispositive power over all 19,143,036 shares. This information is based solely on the Schedule 13G filed by PRIMECAP Management Company with the Securities and Exchange Commission on February 9, 2017, which reported ownership as of December 31, 2016.
- (3) Of the 19,433,223 shares attributed to BlackRock, Inc., it has sole voting power over 17,729,736 and sole dispositive power over all 19,433,223 shares. This information is based solely on the Schedule 13G filed by BlackRock, Inc. with the Securities and Exchange Commission on January 25, 2017, which reported ownership as of December 31, 2016.
- (4) Of the 25,705,128 shares attributed to Franklin Resources, Inc., it shares voting and dispositive powers over all 25,705,128 shares with various members of a reporting group of which it is part. This information is based solely on the Schedule 13G filed by Franklin Resources Inc. with the Securities and Exchange Commission on February 7, 2017, which reported ownership as of December 31, 2016.

Our common stock is traded on the NASDAQ Global Select Market in the United States and on the Prime Standard Segment of the Frankfurt Stock Exchange in Germany. A significant portion of our shares are held electronically in the account of a stockbroker, therefore we generally have no way of determining who our shareholders are, their geographical location or how many shares a particular shareholder owns. As of January 31, 2017 there were 142 shareholders of record of our Common Shares.

Control of Registrant

To our knowledge, we are not directly or indirectly owned or controlled by another corporation, by any foreign government, or by any other natural or legal person. As of January 31, 2017, the officers and directors of QIAGEN as a group beneficially owned 5.6 million Common Shares, or 2.48% of the then outstanding Common Shares.

Related Party Transactions

For information on related party transactions, see Note 22 of the Notes to Consolidated Financial Statements.

Item 8. Financial Information

See Item 18.

Legal Proceedings

For information on legal proceedings, see Note 19 of the Notes to Consolidated Financial Statements.

While no assurances can be given regarding the outcome of proceedings described in Note 19, based on information currently available, we believe that the resolution of these matters is unlikely to have a material adverse effect on our financial position or results of future operations for QIAGEN N.V. as a whole. However, because of the nature and inherent uncertainties of litigation, should the outcomes be unfavorable, certain aspects of our business, financial condition, and results of operations and cash flows could be materially adversely affected.

Statement of Policy on Dividend Distribution

We have not paid any dividends on our Common Shares since our inception and do not intend to pay any dividends on our Common Shares in the foreseeable future. We intend to retain our earnings, if any, for the development of our business.

Disclosure pursuant to Section 219 of the Iran Threat Reduction & Syria Human Rights Act (ITRA)

We conduct limited business with certain Iranian entities which contributed \$3.1 million or approximately 0.2% of our consolidated net sales in 2016. Although these activities are compliant with applicable law and not financially material, the Iran Threat Reduction and Syria Human Rights Act of 2012 (the "Act") requires us to include the following disclosures in this report. Sales consisted of our consumables and instrumentation products. U.S. affiliates, or foreign affiliates controlled by U.S. affiliates, are not involved in these sales activities and we have not knowingly conducted a transaction or dealt with a person or entity designated in U.S. Executive Orders No. 13224 and 13382. No business has been transacted with the Government of Iran as defined in the Act. We do not believe any of our activities are sanctionable under the Iran Sanctions Act or the Comprehensive Iran Sanctions, Accountability, and Divestment Act of 2010. In light of the nature of the products concerned, we do not currently intend to cease our commercial operations with Iranian entities.

Item 9. The Offer and Listing

Effective July 3, 2006, our Common Shares began trading on the NASDAQ Global Select Market under the symbol QGEN. Previously, since February 15, 2005, our Common Shares had been quoted on the NASDAQ National Market under the symbol QGEN. Prior to that, since June 27, 1996, our Common Shares had been quoted on the NASDAQ National Market under the symbol QGENF. The following tables set forth the annual high and low sale prices for the last five years, the quarterly high and low sale prices for the last two years, and the monthly high and low sale prices for the last six months of our Common Shares on the NASDAQ Global Select and NASDAQ National Market, as applicable.

	High (\$)	Low (\$)
Annual:		
2012	19.41	14.05
2013	24.74	18.30
2014	25.32	19.46
2015	28.53	22.11
2016	28.84	19.94

	High (\$)	Low (\$)
Quarterly 2015:		
First Quarter	25.91	22.11
Second Quarter	25.74	23.63
Third Quarter	28.53	24.38
Fourth Quarter	28.04	23.80
Quarterly 2016:		
First Quarter	26.89	20.10
Second Quarter	24.05	19.94
Third Quarter	27.70	21.38
Fourth Quarter	28.84	23.94
Quarterly 2017:		
First Quarter (through February 28, 2017)	29.79	27.40
	High (\$)	Low (\$)
Monthly:		
September 2016	27.59	25.30
October 2016	27.74	24.28
November 2016	28.50	23.94
December 2016	28.84	26.79
January 2017	29.09	27.40
February 2017	29.79	27.93

From September 25, 1997, to December 31, 2002, our Common Shares were traded on the Frankfurt Stock Exchange Neuer Markt under the symbol QIA and with the security code number 901626. As of January 1, 2003, the trading of our Common Shares was transferred to the Prime Standard Segment of the Frankfurt Stock Exchange, where QIAGEN is a member of the TecDAX, an index of the 30 leading technology companies in Germany not included in the benchmark DAX index. The following table sets forth the annual high and low sale prices for the last five years, the quarterly high and low sale prices for the last two years, and the monthly high and low sale prices for the last six months of our Common Shares on the Prime Standard.

	High (EUR)	Low (EUR)
Annual:		
2012	15.05	10.69
2013	18.15	13.67
2014	19.64	14.38
2015	26.05	18.72
2016	27.26	17.76

	High (EUR)	Low (EUR)
Quarterly 2015:		
First Quarter	24.00	18.72
Second Quarter	24.14	20.77
Third Quarter	26.05	21.19
Fourth Quarter	25.54	21.73
Quarterly 2016:		
First Quarter	24.96	17.76
Second Quarter	21.40	18.16
Third Quarter	24.77	19.27
Fourth Quarter	27.26	21.77
Quarterly 2017:		
First Quarter (through February 28, 2017)	27.77	25.53
	High (EUR)	Low (EUR)
Monthly:		
September 2016	24.51	22.11
October 2016	24.71	22.30
November 2016	26.51	21.77
December 2016	27.26	25.24
January 2017	27.67	25.53
February 2017	27.77	26.27

Item 10. Additional Information

Memorandum and Articles of Association

We are a public company with limited liability (*naamloze vennootschap*) incorporated under Dutch law and registered with the Dutch Trade Register under file number 12036979. Set forth below is a summary of certain provisions of our full Articles of Association, as lastly amended on January 24, 2017 (the Articles), and Dutch law, where appropriate. The Dutch Corporate Governance Code, (the Dutch Code), contains principles of good corporate governance and best practice provisions. The Dutch Code contains the principles and concrete provisions which the persons involved in a listed company (including Managing Board members and Supervisory Board members) and stakeholders should observe in relation to one another. A revised Dutch Code was published on December 8, 2016 and is applicable as from January 1, 2017. A listed company should either comply with, or if not, explain in its annual report why and to what extent it does not comply, with the best practice provisions of the Dutch Code. The Dutch Code has been taken into account in the summary below.

This summary does not purport to be complete and is qualified in its entirety by reference to the Articles, Dutch Law and the Dutch Code.

Corporate Purpose

Our objectives include, without limitation, the performance of activities in the biotechnology industry, as well as incorporating, acquiring, participating in, financing, managing and having any other interest in companies or enterprises of any nature, raising and lending funds and such other acts as may be conducive to our business.

Managing Directors

QIAGEN shall be managed by a Managing Board consisting of one or more Managing Directors under the supervision of the Supervisory Board. The Managing Directors must take into account our interests and our business and the interests of all stakeholders (which includes but is not limited to our shareholders). Managing Directors shall be appointed by the General Meeting of our shareholders upon the joint meeting of the Supervisory Board and the Managing Board, or Joint Meeting, having made a binding nomination for each vacancy. However, the General Meeting may at all times overrule the binding nature of such a nomination by a resolution adopted by at least a two-thirds majority of the votes cast, if such majority represents more than half the issued share capital. This is different from the provisions of many American corporate statutes,

including the Delaware General Corporation Law, which give the directors of a corporation greater authority in choosing the executive officers of a corporation. Under our Articles, the General Meeting may suspend or dismiss a managing director at any time. The Supervisory Board shall also at all times be entitled to suspend (but not to dismiss) a Managing Director. The Articles provide that the Supervisory Board may adopt management rules governing the internal organization of the Managing Board.

Furthermore, the Supervisory Board shall determine the salary, the bonus, if any, and the other compensation terms and conditions of employment of the Managing Directors within the scope of the remuneration policy. The remuneration policy of the Managing Board has been adopted in our Annual General Meeting on June 25, 2014.

Under Dutch law, in the event that there is a conflict of interest between a Managing Director and us on a certain matter, that Managing Director shall not participate in the discussions and voting on that matter. If all our managing directors have a conflict of interest, such resolution shall be adopted by the Supervisory Board. If all Supervisory Directors have a conflict of interest as well, the General Meeting will be authorized to resolve on such matter. According to the Dutch Code, any conflict of interest or apparent conflict of interest between the company and Managing Directors should be avoided. Decisions to enter into transactions under which Managing Directors would have conflicts of interest that are of material significance to the Company and/or to the relevant Managing Director require the approval of the Supervisory Board.

Supervisory Directors

The Supervisory Board shall be responsible for supervising the policy pursued by the Managing Board and our general course of affairs. Under our Articles, the Supervisory Directors are required to serve our interests and our business and the interest of all stakeholders (which includes but is not limited to our shareholders) in fulfilling their duties. The Supervisory Board shall consist of such number of members as the Joint Meeting may from time to time determine, with a minimum of three members. The Supervisory Directors shall be appointed by the General Meeting upon the Joint Meeting having made a binding nomination for each vacancy. If during a financial year a vacancy occurs in the Supervisory Board, the Supervisory Board may appoint a Supervisory Director who will cease to hold office at the next Annual General Meeting. Under Dutch law and the Dutch Code, a Supervisory Director must excuse him or herself in the case of any conflict of interest. If all Supervisory Directors have a conflict of interest, the relevant resolution shall be adopted by the General Meeting. Decisions to enter into transactions under which a Supervisory Director would have a conflict of interest that are of material significance to QIAGEN and/or to the Supervisory Director concerned, require the approval of the Supervisory Board.

Under Dutch law and the Dutch Code, the General Meeting determines the compensation of the Supervisory Directors upon the proposal of the Compensation Committee. Any shares held by a Supervisory Director in the company on whose board he sits should be long-term investments.

Under our Articles, the General Meeting may suspend or dismiss a Supervisory Director at any time. This is different from the provisions of many American corporate statutes, including the Delaware General Corporation Law, which provides that directors may vote to fill vacancies on the board of directors of a corporation.

Liability of Managing Directors and Supervisory Directors

Under Dutch law, as a general rule, Managing Directors and Supervisory Directors are not liable for obligations we incur. Under certain circumstances, however, they may become liable, either towards QIAGEN (internal liability) or to others (external liability), although some exceptions are described below.

Liability towards QIAGEN

Failure of a Managing or Supervisory Director to perform his or her duties does not automatically lead to liability. Liability is only incurred in the case of a clear, indisputable shortcoming about which no reasonably judging business-person would have any doubt. In addition, the Managing or Supervisory Director must be deemed to have been grossly negligent. Managing Directors are jointly and severally liable for failure of the Managing Board as a whole, but an individual Managing Director will not be held liable if he or she is determined not to have been responsible for the mismanagement and has not been negligent in preventing its consequences. Supervisory Directors are jointly and severally liable for failure of the Supervisory Board as a whole, but an individual Supervisory Director will not be held liable if he or she is determined not to have been responsible for the mismanagement and has not been negligent in preventing its consequences.

Liability for Misrepresentation in Annual Accounts

Managing and Supervisory Directors are also jointly and severally liable to any third party for damages suffered as a result of misrepresentation in the annual accounts, management commentary or interim statements of QIAGEN, although a Managing or Supervisory Director will not be held liable if found not to be personally responsible for the misrepresentation. Moreover, a Managing or Supervisory Director may be found to be criminally liable if he or she deliberately publishes false annual accounts or deliberately allows the publication of such false annual accounts.

Tort Liability

Under Dutch law, there can be liability if one has committed a tort (*onrechtmatige daad*) against another person. Although there is no clear definition of “tort” under Dutch law, breach of a duty of care towards a third party is generally considered to be a tort. Therefore, a Dutch corporation may be held liable by any third party under the general rule of Dutch laws regarding tort claims. In exceptional cases, Managing Directors and Supervisory Directors have been found liable on the basis of tort under Dutch common law, but it is generally difficult to hold a Managing or Supervisory Director personally liable for a tort claim. Shareholders cannot base a tort claim on any losses which derive from and coincide with losses we suffered. In such cases, only we can sue the Managing or Supervisory Directors.

Criminal Liability

Under Dutch law, if a legal entity has committed a criminal offence, criminal proceedings may be instituted against the legal entity itself as well as against those who gave order to or were in charge of the forbidden act. As a general rule, it is held that a Managing Director is only criminally liable if he or she played a reasonably active role in the criminal act.

Indemnification

Article 27 of our Articles provides that we shall indemnify every person who is or was a Managing Director or Supervisory Director against all expenses (including attorneys’ fees) judgments, fines and amounts paid in settlement with respect to any threatened pending or completed action, suit or proceeding as well as against expenses (including attorneys’ fees) actually and reasonably incurred in connection with the defense or settlement of an action or proceeding, if such person acted in good faith and in a manner he reasonably could believe to be in or not opposed to our best interests. An exception is made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable for gross negligence or willful misconduct in the performance of his or her duty to us.

Classes of Shares

The authorized classes of our shares consist of Common Shares, Financing Preference Shares and Preference Shares. No Financing Preference Shares or Preference Shares have been issued.

Common Shares

Common Shares are issued in registered form only. Until January 24, 2017, Common Shares were available either without issue of a share certificate, or Type I shares, or with issue of a share certificate, or Type II shares, in either case in the form of an entry in the share register. At the discretion of the Supervisory Board, Type I shares may be issued and the holders of such Type I shares will be registered in either our shareholders register with American Stock Transfer & Trust Company, or New York Transfer Agent, our transfer agent and registrar in New York, or our shareholder register with TMF FundServices B.V., Westblaak 89, NL-3012 KG Rotterdam, The Netherlands. The Type II shares were registered with our New York Transfer Agent.

On January 24, 2017 an adjustment to the capital structure of the Company took place in order to repay approximately USD 250 million to the Company’s shareholders via a so called synthetic share repurchase. This involved three amendments of the Company’s Articles. With the first amendment of the Articles, the par value of each Common Share was increased. With the second Amendment of the Articles, the Shares were consolidated on the basis of a ratio as determined by the Managing Board as result thereof the total number of issued Shares were decreased and fractional Shares were introduced. Each fractional Share represents one/twenty-seventh ($1/27^{\text{e}}$) portion of the value of an ordinary Share. Also, as a result of this second amendment of the articles of association, the Company can no longer issue share certificates, existing share certificates are no longer valid and therefore no longer a distinction is made between Type I and Type II Shares. With the third amendment of the Articles the par value per Share was decreased to EUR 0.01 (the same par value as before the first amendment of the Articles). A part of the value whereby the par value of Shares was decreased was paid to the shareholders.

The transfer of registered shares requires that we issue a written instrument of transfer and the written acknowledgment of such transfer (or, in the case of Type II shares as existed until January 24, 2017, the New York Transfer Agent (in our name)), and surrender of the share certificates, if any, to us or (in our name) to the New York Transfer Agent. Upon surrender of a share certificate for the purpose of transfer of the relevant shares, we (or the New York Transfer Agent in our name) acknowledge the transfer by endorsement on the share certificate or by issuance of a new share certificate to the transferee, at the discretion of the Managing Board.

Financing Preference Shares

No Financing Preference Shares are currently issued or outstanding. If issued, Financing Preference Shares will be issued in registered form only. No share certificates are issued for Financing Preference Shares. Financing Preference Shares must be fully paid up upon issue. The preferred dividend rights attached to Financing Preference Shares are described under “Dividends” below. We have no present plans to issue any Financing Preference Shares.

Preference Shares

No Preference Shares are currently issued or outstanding. If issued, Preference Shares will be issued in registered form only. No share certificates shall be issued for Preference Shares. Only 25% of the nominal value thereof is required to be paid upon subscription for Preference Shares. The obligatory payable part of the nominal amount (or the call) must be equal for each Preference Share. The Managing Board may, subject to the approval of the Supervisory Board, resolve on which day and up to which amount a further call must be paid on Preference Shares which have not yet been paid up in full. The preferred dividend rights attached to Preference Shares are described under “Dividends” below.

Pursuant to our Articles, QIAGEN’s Supervisory Board is entitled, if and in so far as the Supervisory Board has been designated by our General Meeting, to resolve to issue Preference Shares in case of an intended take-over of our Company by (i) any person who alone or with one or more other persons, directly or indirectly, have acquired or given notice of an intent to acquire (beneficial) ownership of an equity stake which in aggregate equals 20% or more of our share capital then outstanding or (ii) an “adverse person” as determined by the Supervisory Board. For this purpose, an “adverse person” is generally any (legal) person, alone or together with affiliates or associates, with an equity stake in our Company which the Supervisory Board considers to be substantial and where the Supervisory Board is of the opinion that this (legal) person has engaged in an acquisition that is intended to cause or pressure QIAGEN to enter into transactions intended to provide such person with short-term financial gain under circumstances that would not be in the interest of QIAGEN and our shareholders or whose ownership is reasonably likely to cause a material adverse impact on our business prospects. Currently the Supervisory Board has not been designated to issue Preference Shares.

On August 2, 2004, we entered into an agreement (Option Agreement) with Stichting Preferente Aandelen QIAGEN (SPAQ) which was most recently amended on June 4, 2012. Pursuant to the Option Agreement, SPAQ was granted an option to acquire such number of Preference Shares as are equal to the total number of all outstanding Common Shares minus one in our share capital at the time of the relevant exercise of the right. SPAQ may exercise its right to acquire the Preference Shares in all situations that it believes that our interest or our stakeholders is at risk (which situations include but are not limited to (i) receipt of a notification from the Managing Board that a takeover is imminent and (ii) receipt of a notification from the Managing Board that one or more activist shareholders take a position that is not in the interest of QIAGEN, our shareholders or our other stakeholders), provided that the conditions mentioned in the previous paragraph have been met. Due to the implementation of the EC Directive on Takeover Bids in Dutch legislation, the exercise of the option to acquire Preference Shares by SPAQ and the subsequent issuance of Preference Shares to SPAQ needs to be done with due observance and in consideration of the restrictions imposed by the Public Offer Rules.

SPAQ was incorporated on August 2, 2004. Its principal office is located at Hulsterweg 82, 5912 PL Venlo, The Netherlands. Its statutory objectives are to protect our interests and our enterprise and the enterprises of companies which are linked to us. SPAQ shall attempt to accomplish its objectives by way of acquiring Preference Shares in the share capital of QIAGEN and to exercise the voting rights in our interests and the interests of our stakeholders.

The board of SPAQ shall consist of at least two directors. Upon incorporation of SPAQ, two members were appointed to the board of SPAQ. Additional board members shall be appointed by the board of SPAQ. Board resolutions will be adopted by unanimity of the votes cast. SPAQ will be represented either by its board or by the chairman of its board.

Pre-emptive Rights

Under our Articles, existing holders of Common Shares will have pre-emptive rights in respect of future issuances of Common Shares in proportion to the number of Common Shares held by them, unless limited or excluded as described below. Holders of Common Shares shall not have pre-emptive rights in respect of future issuances of Financing Preference Shares or Preference Shares. Holders of Financing Preference Shares and Preference Shares shall not have pre-emptive rights in respect of any future issuances of share capital. Pre-emptive rights do not apply with respect to shares issued against contributions other than in cash or shares issued to our employees or one of our group companies. Under our Articles, the Supervisory Board has the power to limit or exclude any pre-emptive rights to which shareholders may be entitled, provided that it has been authorized by the General Meeting to do so. The authority of the Supervisory Board to limit or exclude pre-emptive rights can only be exercised if at that time the authority to issue shares is in full force and effect. The authority to limit or exclude pre-emptive rights may be extended in the same manner as the authority to issue shares. If there is no designation of the Supervisory Board to limit or exclude pre-emptive rights in force, the General Meeting shall have authority to limit or exclude such pre-emptive rights, but only upon the proposal of the Supervisory Board.

Resolutions of the General Meeting (i) to limit or exclude pre-emptive rights or (ii) to designate the Supervisory Board as the corporate body that has authority to limit or exclude pre-emptive rights, require a majority of at least two-thirds of the votes cast in a meeting of shareholders if less than 50% of the issued share capital is present or represented. For these purposes, issuances of shares include the granting of rights to subscribe for shares, such as options and warrants, but not the issue of shares upon exercise of such rights.

On June 21, 2016, the General Meeting resolved to authorize the Supervisory Board until December 21, 2017 to issue Common Shares and Financing Preference Shares or grant rights to subscribe for such shares, the aggregate par value of which shall be equal to the aggregate par value of all shares issued and outstanding in the capital of the Company as of December 31, 2015 as included in the Annual Accounts for Fiscal Year 2015.

The General Meeting subsequently resolved to grant the authority to restrict or exclude pre-emptive rights until December 21, 2017. However, the General Meeting has limited this authority in a way that the Supervisory Board can only exclude or limit the pre-emptive rights in relation to no more than 20% of the aggregate number of all shares issued and outstanding in the capital of the Company as of December 31, 2015.

Acquisition of Our Own Shares

We may acquire our own shares, subject to certain provisions of Dutch law and our Articles, if (i) shareholders' equity less the payment required to make the acquisition does not fall below the sum of paid-up and called-up capital and any reserves required by Dutch law or the Articles and (ii) we and our subsidiaries would not thereafter hold shares with an aggregate nominal value exceeding half of our issued share capital. Shares that we hold in our own capital or shares held by one of our subsidiaries may not be voted. The Managing Board, subject to the approval of the Supervisory Board, may affect our acquisition of shares in our own capital. Our acquisitions of shares in our own capital may only take place if the General Meeting has granted to the Managing Board the authority to effect such acquisitions. Such authority may apply for a maximum period of 5 years and must specify the number of shares that may be acquired, the manner in which shares may be acquired and the price limits within which shares may be acquired. Dutch corporate law allows for the authorization of the Managing Board to purchase a number of shares equal to up to 50% of the Company's issued share capital on the date of the acquisition. On June 21, 2016, the General Meeting resolved to extend the authorization of the Managing Board in such manner that the Managing Board may cause us to acquire shares in our own share capital, for an 18-month period beginning June 21, 2016 until December 21, 2017, without limitation at a price between one Euro cent (Euro 0.01) and one hundred ten percent (110%) of the price for such shares on the NASDAQ Global Select Market or, as applicable, the Frankfurt Stock Exchange, for the five trading days prior to the day of purchase, or, with respect to Preference and Finance Preference shares, against a price between one Euro cent (Euro 0.01) and three times the issuance price and in accordance with applicable provisions of Dutch law and our Articles.

Capital Reduction

Subject to the provisions of Dutch law and our Articles, the General Meeting may, upon the proposal of the Supervisory Board, resolve to reduce the issued share capital by (i) canceling shares or (ii) reducing the nominal value of shares through an amendment of our Articles. Cancellation with repayment of shares or partial repayment on shares or release from the obligation to pay up may also be made or given exclusively with respect to Common Shares, Financing Preference Shares or Preference Shares.

Financial Year, Annual Accounts and Independent Registered Public Accounting Firm

Our financial year coincides with the calendar year. Dutch law and our Articles require that within four months after the end of the financial year, the Managing Board must make available a report with respect to such financial year, including our financial statements for such year prepared under International Financial Reporting Standards and accompanied by a report of an Independent Registered Public Accounting Firm. The annual report is submitted to the Annual General Meeting for adoption.

The General Meeting appoints the external auditor of our statutory financial statements prepared in accordance with International Financial Reporting Standards and to issue a report thereon. On June 21, 2016, our shareholders appointed KPMG Accountants N.V. to serve as our external auditor for our statutory consolidated financial statements prepared in accordance with International Financial Reporting Standards for the year ending December 31, 2016.

Dividends and Other Distributions

Subject to certain exceptions, dividends may only be paid out of profits as shown in our annual financial statements as adopted by the General Meeting. Distributions may not be made if the distribution would reduce shareholders' equity below the sum of the paid-up capital and any reserves required by Dutch law or our Articles.

Out of profits, dividends must first be paid on any outstanding Preference Shares (the Preference Share Dividend) in a percentage (the Preference Share Dividend Percentage) of the obligatory call amount paid up on such shares at the beginning of the financial year in respect of which the distribution is made. The Preference Share Dividend Percentage is equal to the average main refinancing rates during the financial year for which the distribution is made. Average main refinancing rate shall be understood to mean the average value on each individual day during the financial year for which the distribution is made of the main refinancing rates prevailing on such day. The main refinancing rate shall be understood to mean the rate of the Main Refinancing Operation as determined and published from time to time by the European Central Bank. If and to the extent that profits are not sufficient to pay the Preference Share Dividend in full, the deficit shall be paid out of the reserves, with the

exception of any reserve, which was formed as share premium reserve upon the issue of Financing Preference Shares. If in any financial year the profit is not sufficient to make the distributions referred to above and if no distribution or only a partial distribution is made from the reserves referred to above, such that the deficit is not fully made good, no further distributions will be made as described below until the deficit has been made good.

Out of profits remaining after payment of any dividends on Preference Shares, the Supervisory Board shall determine such amounts as shall be kept in reserve as determined by the Supervisory Board. Out of any remaining profits not allocated to reserve, a dividend (the Financing Preference Share Dividend) shall be paid on the Financing Preference Shares equal to a percentage (the Financing Preference Share Dividend Percentage) over the nominal value of the Financing Preference Shares, increased by the amount of share premium that was paid upon the first issue of Financing Preference Shares. The Financing Preference Shares Dividend Percentage which percentage is related to a fixed average effective yield on the prime interest rate on corporate loans in the United States as quoted in the Wall Street Journal as set forth in article 40.4 of our Articles. If and to the extent that the profits are not sufficient to pay the Financing Preference Share Dividend in full, the deficit may be paid out of the reserves if the Managing Board so decides with the approval of the Supervisory Board, with the exception of the reserve which was formed as share premium upon the issue of Financing Preference Shares.

Insofar as the profits have not been distributed or allocated to reserves as specified above, the General Meeting may act to allocate such profits, provided that no further dividends will be distributed on the Preference Shares or the Financing Preference Shares.

The General Meeting may resolve, on the proposal of the Supervisory Board, to distribute dividends or reserves, wholly or partially, in the form of QIAGEN shares.

Distributions as described above are payable as from a date to be determined by the Supervisory Board. The date of payment on Type I shares may differ from the date of payment on Type II shares. Distributions will be made payable at an address or addresses in The Netherlands to be determined by the Supervisory Board, as well as at least one address in each country where the shares are listed or quoted for trading. The Supervisory Board may determine the method of payment of cash distributions, provided that cash distributions in respect of Type II shares will, subject to certain exceptions, be paid in the currency of a country where our shares are listed or quoted for trading, converted at the close of business on a day to be determined for that purpose by the Supervisory Board. Distributions in cash that have not been collected within five years and two days after they have become due and payable shall revert to QIAGEN.

Dutch law provides that the declaration of dividends out of the profits that are at the free disposal of the General Meeting is the exclusive right of the General Meeting. This is different from the corporate law of most jurisdictions in the United States, which permit a corporation's board of directors to declare dividends.

Shareholder Meetings, Voting Rights and Other Shareholder Rights

The annual General Meeting is required to be held within six months after the end of each financial year for the purpose of, among other things, adopting the annual accounts and filling of any vacancies on the Managing and Supervisory Boards.

Extraordinary General Meetings are held as often as deemed necessary by the Managing Board or Supervisory Board, or upon the request of one or more shareholders and other persons entitled to attend meetings jointly representing at least 40% of our issued share capital or by one or more shareholders jointly representing at least 10% of our issued share capital as provided for and in accordance with the laws of The Netherlands.

General Meetings are held in Amsterdam, Haarlemmermeer (Schiphol Airport), Arnhem, Maastricht, Rotterdam, Venlo or The Hague. The notice convening a General Meeting must be given in such manner as shall be authorized by law including but not limited to an announcement published by electronic means no later than the forty-second day prior to day of the general meeting. The notice will contain the agenda for the meeting or state that the agenda can be obtained at our offices.

The agenda shall contain such subjects to be considered at the General Meeting, as the persons convening or requesting the meeting shall decide. Under Dutch law, holders of shares representing solely or jointly at least three hundredth part of the issued share capital may request QIAGEN not later than on the sixtieth day prior to the day of the General Meeting, to include certain subjects on the notice convening a meeting. No valid resolutions can be adopted at a General Meeting in respect of subjects which are not mentioned in the agenda.

Dutch corporate law sets a mandatory (participation and voting) record date for Dutch listed companies fixed at the twenty-eighth day prior to the day of the shareholders' meeting. Shareholders registered at such record date are entitled to attend and exercise their rights as shareholders at the General Meeting, regardless of a sale of shares after the record date.

General Meetings are presided over by the chairman of the Supervisory Board or, in his absence, by any person nominated by the Supervisory Board.

At the General Meeting, each share shall confer the right to cast one vote, unless otherwise provided by law or our Articles. No votes may be cast in respect of shares that we or our subsidiaries hold, or by usufructuaries and pledgees. All shareholders and other persons entitled to vote at General Meetings are entitled to attend General Meetings, to address the meeting and to vote. They must notify the Managing Board in writing of their intention to be present or represented not later than on the third day prior to the day of the meeting, unless the Managing Board permits notification within a shorter period of time prior to any such meeting. Subject to certain exceptions, resolutions may be passed by a simple majority of the votes cast.

Except for resolutions to be adopted by the meeting of holders of Preference Shares, our Articles do not allow the adoption of shareholders resolutions by written consent (or otherwise without holding a meeting).

A resolution of the General Meeting to amend our Articles, dissolve QIAGEN, issue shares or grant rights to subscribe for shares or limit or exclude any pre-emptive rights to which shareholders shall be entitled is valid only if proposed to the General Meeting by the Supervisory Board.

A resolution of the General Meeting to amend our Articles is further only valid if the complete proposal has been made available for inspection by the shareholders and the other persons entitled to attend General Meetings at our offices as from the day of notice convening such meeting until the end of the meeting. A resolution to amend our Articles to change the rights attached to the shares of a specific class requires the approval of the relevant class meeting.

Resolutions of the General Meeting in a meeting that has not been convened by the Managing Board and/or the Supervisory Board, or resolutions included on the agenda for the meeting at the request of shareholders, will be valid only if adopted with a majority of two-thirds of votes cast representing more than half the issued share capital, unless our Articles require a greater majority or quorum.

A resolution of the General Meeting to approve a legal merger or the sale of all or substantially all of our assets is valid only if adopted by a vote of at least two-thirds of the issued share capital, unless proposed by the Supervisory Board, in which case a simple majority of the votes cast shall be sufficient.

A shareholder shall upon request be provided, free of charge, with written evidence of the contents of the share register with regard to the shares registered in its name. Furthermore, any shareholder shall, upon written request, have the right, during normal business hours, to inspect our share register and a list of our shareholders and their addresses and shareholdings, and to make copies or extracts therefrom. Such request must be directed to our Managing Directors at our registered office in The Netherlands or at our principal place of business. Financial records and other company documents (other than those made public) are not available in this manner for shareholder review, but an extract of the minutes of the General Meeting shall be made available.

According to Dutch law and our Articles, certain resolutions of the Managing Board regarding a significant change in the identity or nature of us or our enterprise are subject to the approval of the General Meeting. The following resolutions of the Managing Board require the approval of the General Meeting in any event:

- (i) the transfer of our enterprise or practically our entire enterprise to a third party;
- (ii) the entry into or termination of a long-term cooperation by us or one of our subsidiaries (*dochtermaatschappijen*) with another legal person or partnership or as a fully liable general partner of a limited partnership or a general partnership, if such cooperation or termination is of a far-reaching significance for us; and
- (iii) the acquisition or divestment by us or one of our subsidiaries (*dochtermaatschappijen*) of a participating interest in the capital of a company with a value of at least one-third of the sum of our assets according to our consolidated balance sheet and explanatory notes in our last adopted annual accounts.

No Derivative Actions; Right to Request Independent Inquiry

Dutch law does not afford shareholders the right to institute actions on behalf of us or in our interest. Shareholders holding at least one-tenth of our issued capital, or EUR 225,000, in nominal value of our shares may inform the Managing Board and the Supervisory Board of their objections as to our policy or the course of our affairs and, within a reasonable time thereafter, may request the Enterprises Division of the Court of Appeal in Amsterdam to order an inquiry into the policy and the course of our affairs by independent investigators. If such an inquiry is ordered and the investigators conclude that there has been mismanagement, the shareholders can request the Division to order certain measures such as a suspension or annulment of resolutions.

Dissolution and Liquidation

The General Meeting may resolve to dissolve QIAGEN. If QIAGEN is dissolved, the liquidation shall be carried out by the person designated for that purpose by the General Meeting, under the supervision of the Supervisory Board. The General Meeting shall upon the proposal of the Supervisory Board determine the remuneration payable to the liquidators and to the person responsible for supervising the liquidation.

During the liquidation process, the provisions of our Articles will remain applicable to the extent possible.

In the event of our dissolution and liquidation, the assets remaining after payment of all debts and liquidation expenses will be distributed among registered holders of Common Shares in proportion to the nominal value of their Common Shares, subject to liquidation preference rights of holders of Preference Shares and Financing Preference Shares, if any.

Restrictions on Transfer of Preference Shares

The Supervisory Board, upon application in writing, must approve each transfer of Preference Shares. If approval is refused, the Supervisory Board will designate prospective purchasers willing and able to purchase the shares, otherwise the transfer will be deemed approved.

Limitations in our Articles on Rights to Own Securities

Other than with respect to usufructuaries and pledgees who have no voting rights, our Articles do not impose limitations on rights to own our securities.

Provisions which May Defer or Prevent a Change in Control

The Option Agreement and our Articles could, under certain circumstances, prevent a third party from obtaining a majority of the voting control of our shares by issuing Preference Shares. Under the Option Agreement, SPAQ could acquire Preference Shares subject to the provisions referred to under "Preference Shares".

If SPAQ acquires the Preference Shares, the bidder may withdraw its bid or enter into negotiations with the Managing Board and/or Supervisory Board and agree on a higher bid price for our shares.

Shareholders who obtain control of a company are obliged to make a mandatory offer to all other shareholders. The threshold for a mandatory offer is set at the ability to exercise 30% of the voting rights at the general meeting of shareholders in a Dutch public limited company (*naamloze vennootschap*) whose securities are admitted to trading on a regulated market in the EU, such as QIAGEN.

Ownership Threshold Requiring Disclosure

Our Articles do not provide an ownership threshold above which ownership must be disclosed. However there are statutory requirements to disclose share ownership above certain thresholds under Dutch law—see “Obligation of Shareholders to Disclose Major Holdings”.

Exchange Controls

There are currently no limitations either under the laws of The Netherlands or in our Articles, to the rights of shareholders from outside The Netherlands to hold or vote Common Shares. Under current foreign exchange regulations in The Netherlands, there are no material limitations on the amount of cash payments that we may remit to residents of foreign countries.

Obligation of Shareholders to Disclose Major Holdings

Certain holders of our shares or rights to acquire shares (which include options and convertible bonds - see also below) are subject to notification obligations under Chapter 5.3 of the Dutch Financial Markets Supervision Act (FMSA).

Under Chapter 5.3 of the FMSA, any person who, directly or indirectly, acquires or disposes of an interest (including potential interest, such as options and convertible bonds), in our capital or voting rights must immediately notify The Netherlands Authority for the Financial Markets (AFM) by means of a standard form, if as a result of such acquisition or disposal, the percentage of capital interest or voting rights held by such person in QIAGEN reaches, exceeds or falls below any of the following thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95% of the voting rights or capital interests in the issued capital of QIAGEN. This also applies if a short position exceeding aforementioned threshold is acquired. If both a (gross) short position and a long position exceeding the threshold are acquired, both provisions will need to be reported.

A notification requirement also applies if a person's capital interest or voting rights reach, exceed or fall below the above mentioned thresholds as a result of a change in our total share capital or voting rights. Such notification has to be made no later than the fourth trading day after the AFM has published our notification as described below. We are required to notify the AFM immediately of the changes to our total share capital or voting rights if our share capital or voting rights changes by 1% or more since our previous notification. We must furthermore quarterly notify the AFM within eight days after the end of the relevant quarter, in the event our share capital or voting rights changed by less than 1% in that relevant quarter since our previous notification.

Furthermore, each person who is or ought to be aware that, as a result of the exchange of certain financial instruments, such as options for shares, his actual capital or voting interest in QIAGEN, reaches, exceeds or falls below any of the following

thresholds: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%, vis-à-vis his most recent notification to the AFM, must give notice to the AFM no later than the fourth trading day after he became or ought to be aware of this change.

Controlled entities, within the meaning of the FMSA, do not have notification obligations under the FMSA, as their direct and indirect interests are attributed to their (ultimate) parent. Any person may qualify as a parent for purposes of the FMSA, including an individual. A person who has a 3% or larger interest in our share capital or voting rights and who ceases to be a controlled entity for these purposes must immediately notify the AFM. As of the date of that notification, all notification obligations under the FMSA will become applicable to that entity. For the purpose of calculating the percentage of capital interest or voting rights, among other metrics, the following interests must be taken into account: (i) our shares or voting rights on our shares directly held (or acquired or disposed of) by a person, (ii) our shares or voting rights on our shares held (or acquired or disposed of) by such person's subsidiaries or by a third party for such person's account or by a third party with whom such person has concluded an oral or written voting agreement (including a discretionary power of attorney), and (iii) our shares or voting rights on our shares which such person, or any subsidiary or third party referred to above, may acquire pursuant to any option or other right held by such person (or acquired or disposed of, including, but not limited to, on the basis of convertible bonds). Special rules apply with respect to the attribution of our shares or voting rights on our shares which are part of the property of a partnership or other community of property. A holder of a pledge or right of usufruct (*vruchtgebruik*) in respect of our shares can also be subject to the notification obligations of the FMSA, if such person has, or can acquire, the right to vote on our shares or, in the case of depository receipts, our underlying shares. The acquisition of (conditional) voting rights by a pledgee or usufructuary may also trigger the notification obligations as if the pledgee or beneficial owner were the legal holder of our shares or voting rights on our shares. A holding in certain cash settled derivatives (such as cash settled call options and total equity return swaps) referencing to our shares should also be taken into account for the purpose of calculating the percentage of capital interest.

In addition, pursuant to Regulation (EU) No 236/2012, each person holding a net short position amounting to 0.2% of the issued share capital of a Dutch company that has shares admitted to trading on a European regulated market is required to report it to the AFM. Each subsequent increase of this position by 0.1% above 0.2% will also need to be reported. Each net short position equal to 0.5% of the issued share capital of a Dutch listed company and any subsequent increase of that position by 0.1% will be made public via the AFM short selling register. To calculate whether a natural person or legal person has a net short position, their short positions and long positions must be set-off. A short transaction in a share can only be contracted if a reasonable case can be made that the shares sold can actually be delivered, which requires confirmation of a third party that the shares have been located.

The AFM does not issue separate public announcements of these notifications. It does, however, keep a public register of all notifications under the FMSA on its website www.afm.nl. Third parties can request to be notified automatically by e-mail of changes to the public register in relation to a particular company's shares or a particular notifying party.

Non-compliance with the notification obligations under the FMSA may lead to criminal fines, administrative fines, imprisonment or other sanctions. In addition, non-compliance with the shareholding disclosure obligations under the FMSA may lead to civil sanctions, including suspension of the voting rights relating to our shares held by the offender for a period of not more than three years and a prohibition applicable to the offender to acquire any of our shares or voting rights on our shares for a period of up to five years.

Management

Pursuant to European Union Regulation (EU) No 596/2014 (the “**Market Abuse Regulation**”) and the regulations promulgated thereunder, any Managing Board member and Supervisory Board member, as well as any other person discharging managerial responsibilities in respect of QIAGEN who has regular access to inside information relating directly or indirectly to QIAGEN and power to take managerial decisions affecting future developments and business prospects of QIAGEN, must notify the AFM by means of a standard form of any transactions conducted for his or her own account relating to the shares or debt instruments of QIAGEN or to derivatives or other financial instruments linked thereto.

In addition, pursuant to the Market Abuse Regulation, certain persons who are closely associated with Managing Board members and Supervisory Board members or any of the other persons as described above, are required to notify the AFM of any transactions conducted for their own account relating to the shares or debt instruments of QIAGEN or to derivatives or other financial instruments linked thereto. The Market Abuse Regulation covers, *inter alia*, the following categories of persons: (i) the spouse or any partner considered by national law as equivalent to the spouse; (ii) dependent children; (iii) other relatives who have shared the same household for at least one year at the relevant transaction date; and (iv) any legal person, trust or partnership whose, among other things, managerial responsibilities are discharged by a person referred to under (i) to (iii) above or by the relevant Managing Board members and Supervisory Board members or other person discharging the managerial responsibilities in respect of QIAGEN as described above.

The notifications pursuant to the Market Abuse Regulation described above must be made to the AFM no later than the third business day following the relevant transaction date. Under certain circumstances, these notifications may be postponed until all transactions within a calendar year have reached a total amount of €5,000 (calculated without netting). Any subsequent transaction must be notified as set forth above.

Taxation

The following is a general summary of certain material United States federal income tax consequences to holders of our Common Shares who are “U.S. Holders” (as such term is defined below) and certain material Netherlands tax consequences to holders of our Common Shares who are “non-resident Shareholders” or “Shareholders” (as each term is defined below). This summary does not discuss every aspect of such taxation that may be relevant to such holders. Therefore, all prospective purchasers of our Common Shares described above are advised to consult their own tax advisors with respect to the United States federal, state and local tax consequences, as well as The Netherlands tax consequences, of the ownership of our Common Shares. This summary is based upon the advice of Blais, Halpert, Lieberman & Greene LLC with respect to tax consequences for U.S. Holders under United States law and Baker & McKenzie with respect to tax consequences for non-resident Shareholders or Shareholders under Netherlands law.

The statements of The Netherlands and United States tax laws set out below are based on the laws in force as of the date of this Annual Report on Form 20-F, and as a consequence are subject to any changes in United States or The Netherlands law, or in the double taxation conventions between the United States and The Netherlands, occurring after such date.

Netherlands Tax Considerations

The following describes the material tax consequences under Netherlands law of an investment in our Common Shares. Such description is based on current Netherlands law as interpreted under officially published case law, and is limited to the tax implications for an owner of our Common Shares who is not, or is not deemed to be, a resident of The Netherlands for purposes of the relevant tax codes (a “non-resident Shareholder” or “Shareholder”).

Dividend Withholding Tax

General. Upon distribution of dividends, we would be obligated to withhold 15% dividend tax at source and to pay the amount withheld to The Netherlands tax authorities. The term “dividends” means income from shares or other rights participating in profits, as well as income from other corporate rights that is subjected to the same taxation treatment as income from shares by the laws of The Netherlands. Dividends include dividends in cash or in kind, constructive dividends, certain repayments of capital qualified as dividends, interest on loans that are treated as equity for Netherlands corporate income tax purposes and liquidation proceeds in excess of, for Netherlands tax purposes, recognized paid-in capital. Stock dividends are also subject to withholding tax, unless derived from our paid-in share premium which is recognized as equity for Netherlands tax purposes.

No withholding tax applies on the proceeds resulting from the sale or disposition of our Common Shares to persons other than QIAGEN and our affiliates.

A Shareholder can be eligible for a reduction or a refund of Netherlands dividend withholding tax under a tax convention which is in effect between the country of residence of the Shareholder and The Netherlands. The Netherlands has concluded such conventions with, among others, the United States, Canada, Switzerland, Japan and virtually all EU Member States. A Shareholder can also be eligible for a refund of Netherlands dividend withholding tax to the extent this tax exceeds the Netherlands income tax or corporate income tax that would have been payable if such Shareholder would have been a resident of the Netherlands.

U.S. Shareholders. Under the Tax Convention between The Netherlands and the United States (the “Convention”), the regular 15% withholding tax on dividends we pay to a resident of the United States (as defined in the Convention) who is entitled to the benefits of the Convention, may be reduced to 5% (in the case of a corporate U.S. Shareholder that holds 10% or more of the voting power of a Netherlands company) unless such U.S. shareholder has a permanent establishment in The Netherlands with which the shares are effectively connected.

A full exemption from Netherlands withholding tax may apply to certain U.S. corporate shareholders owning at least 80% of QIAGEN voting power for a period of at least twelve months prior to the distribution.

Dividends we pay to U.S. pension funds and U.S. tax exempt organizations may be eligible for an exemption from dividend withholding tax.

Dividend Stripping. A refund, reduction, exemption, or credit of Netherlands dividend withholding tax on the basis of Netherlands tax law or on the basis of a tax treaty between The Netherlands and another state, will only be granted if the dividends are paid to the beneficial owner (“*uiteindelijk gerechtigde*”) of the dividends. A recipient of a dividend is not considered to be the beneficial owner of a dividend in an event of “dividend stripping,” in which he has paid a consideration related to the receipt of such dividend. In general terms, “dividend stripping” can be described as the situation in which a

foreign or domestic person (usually, but not necessarily, the original shareholder) has transferred his shares or his entitlement to the dividend distributions to a party that has a more favorable right to a refund or reduction of Netherlands dividend withholding tax than the foreign or domestic person. In these situations, the foreign or domestic person (usually the original shareholder) avoids Netherlands dividend withholding tax while retaining his “beneficial” interest in the shares and the dividend distributions, by transferring his shares or his entitlement to the dividend distributions.

Income Tax and Corporate Income Tax

General. A non-resident Shareholder will not be subject to Netherlands income tax or corporate income tax with respect to dividends we distribute on our Common Shares or with respect to capital gains derived from the sale or disposition of our Common Shares, provided that:

- (a) the non-resident Shareholder does not carry on or have an interest in a business in The Netherlands through a permanent establishment or a permanent representative to which or to whom the Common Shares are attributable or deemed to be attributable;
- (b) the non-resident Shareholder does not have a direct or indirect substantial or deemed substantial interest (“*aanmerkelijk belang*,” as defined in The Netherlands tax code) in our share capital or, in the event the Shareholder does have such a substantial interest, such interest is a “business asset”, or, in case of a corporate Shareholder, the arrangement or a series of arrangements are not put in place with the main purpose or one of the main purposes to avoid Dutch income tax or dividend tax for another person or otherwise cannot be considered artificial. An arrangement or series of arrangements are considered artificial to the extent not put in place for valid commercial reasons that reflect economic reality; and
- (c) the non-resident Shareholder is not entitled to a share in the profits of an enterprise, to which our Common Shares are attributable and that is effectively managed in The Netherlands, other than by way of securities or through an employment contract.

In general terms, a substantial interest (“*aanmerkelijk belang*”) in our share capital does not exist if the Shareholder (individuals as well as corporations), alone or together with his partner, does not own, directly or indirectly, 5% or more of the nominal paid-in capital of, or any class of our shares, does not have the right to acquire 5% or more of the nominal paid-in capital of, or any class of our shares (including a call option) and does not have the right to share in our profit or liquidation revenue amounting to 5% or more of the annual profits or liquidation revenue.

There is no all-encompassing definition of the term “business asset”; whether this determination can be made in general depends on the facts presented and in particular on the activities performed by the Shareholder. If the Shareholder materially conducts a business activity, while the key interest of his investment in our Shares will not be his earnings out of the investment in our Shares but our economic activity, an investment in our Shares will generally be deemed to constitute a business asset, in particular if the Shareholder’s involvement in our business will exceed regular monitoring of his investment in our Shares.

U.S. Shareholders. Pursuant to the Convention, the gain derived by a U.S. Shareholder from an alienation of our Common Shares constituting a substantial interest of the Shareholder in QIAGEN, not effectively connected or deemed connected with a permanent establishment or permanent representative of the Shareholder in The Netherlands, is not subject to Netherlands income tax or corporate income tax, provided that the gain from the alienation of our Common Shares is not derived by an individual Shareholder who has, at any time during the five-year period preceding such alienation, been a resident of The Netherlands according to Netherlands tax law and who owns, at the time of the alienation, either alone or together with close relatives, at least 25% of any class of our shares.

Gift and Inheritance Tax

A gift or inheritance of our Common Shares from a non-resident Shareholder will generally not be subject to a Netherlands gift and inheritance tax, provided that the Shareholder does not own a business which is, in whole or in part, carried on through a permanent establishment or a permanent representative in The Netherlands to which or to whom our Common Shares are attributable. The Netherlands has concluded a tax convention with the United States based on which double taxation on inheritances may be avoided if the inheritance is subject to Netherlands and/or U.S. inheritance tax and the deceased was a resident of either The Netherlands or the United States.

United States Federal Income Tax Considerations

The following summarizes certain material U.S. federal income tax consequences of the acquisition, ownership and sale of our Common Shares by an investor that purchases such Common Shares and that will hold the Common Shares as capital assets. This summary does not purport to be a complete analysis or listing of all potential tax considerations and does not address holders subject to special treatment under U.S. federal income tax laws (including insurance companies, tax-exempt organizations, regulated investment companies, financial institutions, broker dealers, U.S. expatriates, persons subject to alternative minimum tax, or holders that own, actually or constructively, 10% or more of our voting shares).

As used herein, references to a “U.S. Holder” are to a holder of our Common Shares that is (i) a citizen or resident for tax purposes of the United States, (ii) a corporation, limited liability company or partnership organized under the laws of the United States or any political subdivision thereof, (iii) any estate (other than an estate the income of which, from sources outside the United States that is not effectively connected with a trade or business within the United States, is not includible in its gross income for U.S. federal income tax purposes), and (iv) any trust if a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust; and references to a “non-U.S. Holder” are to a holder of our Common Shares that is not a U.S. Holder.

Taxation of Dividends

To the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles, distributions, if any, made with respect to our Common Shares will be includable for U.S. federal income tax purposes in the income of a U.S. Holder as ordinary dividend income in an amount equal to the sum of any cash and the fair market value of any property that we distribute, before reduction for Netherlands withholding tax. Such dividends will be eligible to be treated by U.S. Holder individuals, trusts and estates as “qualified dividend income” subject to a maximum tax rate of 20 percent (plus possibly an additional 3.8 percent on net investment income; see “Taxation — United States Federal Income Tax Considerations — Surtax on Net Investment Income”), if the shareholder receiving the dividend satisfies the holding period requirements, does not treat the dividends as “investment income” for purposes of the investment interest deduction, is not under any obligation to make related payments with respect to positions in substantially similar or related property, and if we are not treated for our taxable year in which the dividend is paid, or our preceding taxable year, as a passive foreign investment company (see “Taxation—United States Federal Income Tax Considerations—Passive Foreign Investment Company Status”). To the extent that such distribution exceeds our current or accumulated earnings and profits, it will be treated as a non-taxable return of capital to the extent of the U.S. Holder’s adjusted tax basis in our Common Shares and thereafter as taxable capital gain. Dividends generally will be treated as income from sources outside the United States and generally will be passive category income (or, in the case of certain holders, “financial services income”) for purposes of the foreign tax credit limitation. Dividends we pay will not be eligible for the dividends received deduction allowed to corporations in certain circumstances under the United States Internal Revenue Code of 1986, as amended (the “Code”). A U.S. Holder may elect annually to either deduct The Netherlands withholding tax (see “Taxation—Netherlands Tax Considerations—Dividend Withholding Tax”) against their income (in which case, the election will apply to all foreign income taxes such U.S. Holder paid in that year) or take the withholding taxes as a credit against their U.S. tax liability, subject to U.S. foreign tax credit limitation rules. If the dividends are qualified for the lower applicable capital gains rate (as discussed above), the amount of the dividend income taken into account for calculating the foreign tax credit limitation will in general be limited to the gross amount of the dividend, multiplied by the reduced rate, divided by the highest rate of tax normally applicable to dividends. The rules governing the foreign tax credit are complex. We urge you to consult with your own tax advisors regarding the availability of the foreign tax credit in your particular circumstances.

A non-U.S. Holder generally will not be subject to U.S. federal income tax or withholding tax on distributions with respect to our Common Shares that are treated as dividend income for U.S. federal income tax purposes unless such dividends are effectively connected with the conduct of a trade or business within the United States by such non-U.S. Holder, (and are attributable to a permanent establishment maintained in the United States by such non-U.S. Holder, if an applicable income tax treaty so requires as a condition for such non-U.S. Holder to be subject to U.S. taxation on a net income basis in respect of income from our Common Shares), in which case the non-U.S. Holder generally will be subject to tax in respect of such dividends in the same manner as a U.S. Holder. Any such effectively connected income received by a non-U.S. Holder treated as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. A non-U.S. Holder generally will not be subject to U.S. federal income tax or withholding tax on distributions with respect to our Common Shares that are treated as capital gain for U.S. federal income tax purposes unless such holder would be subject to U.S. federal income tax on gain realized on the sale or other disposition of our Common Shares, as discussed below.

Surtax on Net Investment Income

Certain U.S. Holders that are individuals, estates or trusts and whose income exceeds certain thresholds will be subject to an additional 3.8% surtax on some or all of their “net investment income” (or, in the case of certain estates or trust, their undistributed net investment income). Net investment income generally includes dividends paid on, and gain from the disposition of, our Common Shares unless such dividends or gain is derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). You should consult your tax advisors regarding the effect this surtax may have, if any, on your acquisition, ownership or disposition of our Common Shares.

Taxation of Capital Gains

Subject to the "passive foreign investment company" (PFIC) rules discussed below, upon the sale or other disposition of our Common Shares, a U.S. Holder will recognize gain or loss for U.S. federal income tax purposes in an amount equal to the difference between the amounts realized on the disposition of our Common Shares and the U.S. Holder's adjusted tax basis in our Common Shares. Such gain or loss generally will be subject to U.S. federal income tax. An individual U.S. Holder is generally subject to a maximum capital gains rate of 20% for our Common Shares held for more than a year (plus possibly an additional 3.8 percent on net investment income, as discussed above). For U.S. federal income tax purposes, capital losses are subject to limitations on deductibility. Gain realized by a U.S. Holder on the sale or other disposition of our Common Shares generally will be treated as income from sources within the United States for purposes of the foreign tax credit limitation.

A non-U.S. Holder will not be subject to U.S. federal income tax or withholding tax on gain realized on the sale or other disposition of our Common Shares unless (i) the gain is effectively connected with a trade or business of the non-U.S. Holder in the United States (and is attributable to a permanent establishment maintained in the United States by such non-U.S. Holder, if an applicable income tax treaty so requires as a condition for such non-U.S. Holder to be subject to U.S. taxation on a net income basis in respect of gain from the sale or other disposition of our Common Shares) or (ii) such holder is an individual who is present in the United States for 183 days or more in the taxable year of the sale, and certain other conditions are met. Effectively connected gains realized by a corporate Non-U.S. Holder may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

Passive Foreign Investment Company Status

We may be classified as a PFIC for U.S. federal income tax purposes if certain tests are met. We will be a PFIC with respect to a U.S. Holder if for any taxable year in which the U.S. Holder held our Common Shares, either (i) 75% or more of our gross income for the taxable year is passive income; or (ii) the average value of our assets (during the taxable year) which produce or are held for the production of passive income is at least 50% of the average value of all assets for such year. Passive income means, in general, dividends, interest, royalties, rents (other than rents and royalties derived in the active conduct of a trade or business and not derived from a related person), annuities, and gains from assets which would produce such income other than sales of inventory. For the purpose of the PFIC tests, if a foreign corporation owns at least 25% by value of the stock of another corporation, the foreign corporation is treated as owning its proportionate share of the assets of the other corporation, and as if it had received directly its proportionate share of the income of such other corporation. The effect of this special provision with respect to QIAGEN and our ownership of our subsidiaries is that we, for purposes of the income and assets tests described above, will be treated as owning directly our proportionate share of the assets of our subsidiaries and of receiving directly our proportionate share of each of those companies' income, if any, so long as we own, directly or indirectly, at least 25% by value of the particular company's stock. Active business income of our subsidiaries will be treated as our active business income, rather than as passive income. Based on our income, assets and activities, we do not believe that we were a PFIC for our taxable years ended December 31, 2014, December 31, 2015 and December 31, 2016, and do not expect to be a PFIC for the current taxable year. No assurances can be made, however, that the IRS will not challenge this position or that we will not subsequently become a PFIC. Following the close of any tax year, we intend to promptly send a notice to all shareholders of record at any time during such year, if we determine that we are a PFIC.

Prospective purchasers of our Common Shares are urged to consult their tax advisors regarding the PFIC rules and their effect on an investment in our Common Shares, with particular regard to (i) the advisability of making the "qualified electing fund" election in the event that we notify the shareholders that we have become a PFIC in any taxable year, or (ii) the advisability of making the "mark-to-market" election provided in the tax law.

Backup Withholding and Information Reporting

In general, dividend payments, or other taxable distributions, paid within the United States or through certain U.S.-related financial intermediaries on our Common Shares will be subject to information reporting requirements and backup withholding tax at the rate of 28% for a non-corporate United States person and, who also:

- fails to provide an accurate taxpayer identification number;
- is notified by the Internal Revenue Service that the individual has failed to report all interest or dividends required to be shown on the Federal income tax returns; or
- in certain circumstances, fails to comply with applicable certification requirements.

Certain corporations and persons that are not United States persons may be required to establish their exemption from information reporting and backup withholding by certifying their status on Internal Revenue Service Form W-9 or applicable Form W-8.

If a United States person sells our Common Shares to or through a United States office of a broker, the payment of the proceeds is subject to both United States backup withholding and information reporting unless the individual can certify that they are a non-U.S. person, under penalties of perjury, or they otherwise establish an exemption. If a United States person sells our Common Shares through a non-U.S. office of a non-U.S. broker and the sale proceeds are paid to the person outside the United

States then information reporting and backup withholding generally will not apply to that payment. However, United States information reporting requirements, but not backup withholding, will apply to a payment of sales proceeds, even if that payment is made to the United States person outside the United States, if the person sells our Common Shares through a non-U.S. office of a broker that is a U.S. person or has certain other contacts with the United States.

A holder generally may obtain a refund of any amounts withheld under the backup withholding rules that exceed such holder's income tax liability by filing a refund claim with the United States Internal Revenue Service.

Foreign Currency Issues

If dividends on our Common Shares are paid in euros, the amount of the dividend distribution included in the income of a U.S. Holder will be the U.S. dollar value of the payments made in euros, determined at a spot, euro/U.S. dollar rate applicable to the date such dividend is includible in the income of the U.S. Holder, regardless of whether the payment is in fact converted into U.S. dollars. Generally, gain or loss (if any) resulting from currency exchange fluctuations during the period from the date the dividend is paid to the date such payment is converted into U.S. dollars will be treated as ordinary income or loss. We have never paid cash dividends on our share capital and do not intend to do so for the foreseeable future.

Certain Information Reporting Requirements

Individuals who are U.S. Holders (and to the extent specified in applicable Treasury regulations, certain individual non-U.S. Holders and certain U.S. Holders that are entities), and who hold "specified foreign financial assets" (as defined in section 6038D of the Code), including stock of a non-U.S. corporation that is not held in an account maintained by a U.S. "financial institution" (as defined in section 6038D of the Code), whose aggregate value exceeds \$50,000 on the last day of the taxable year or \$75,000 at any time during the tax year, may be required to attach to their tax returns for the year certain specified information (on IRS Form 8938). (Higher thresholds apply to married individuals filing a joint return and certain individuals residing outside of the United States.) An individual who fails to timely furnish the required information may be subject to a penalty, unless the failure is shown to be due to reasonable cause and not due to willful neglect. Additionally, in the event a U.S. Holder does not file such a report, the statute of limitations on the assessment and collection of U.S. federal income taxes of such U.S. Holder for the related tax year may not close before such report is filed. Under certain circumstances, an entity may be treated as an individual for purposes of the foregoing rules. U.S. Holder (including entities) should consult their own tax advisors regarding their reporting obligations under this legislation.

Documents on Display

Documents referred to in this Annual Report may be inspected at our principal executive office located at Hulsterweg 82, 5912 PL Venlo, The Netherlands.

Item 11. Quantitative and Qualitative Disclosures About Market Risk

Our market risk relates primarily to interest rate exposures on cash, short-term investments and borrowings and foreign currency exposures. Financial risk is centrally managed and is regulated by internal guidelines which require a continuous internal risk analysis. The overall objective of our risk management is to reduce the potential negative earnings effects from changes in interest and foreign exchange rates. Exposures are managed through operational methods and financial instruments relating to interest rate and foreign exchange risks. In the ordinary course of business, we use derivative instruments, including swaps, forwards and/or options, to manage potential losses from foreign currency exposures and interest rates. The principal objective of such derivative instruments is to minimize the risks and/or costs associated with global financial and operating activities. We do not utilize derivative or other financial instruments for trading or other speculative purposes. All derivatives are recognized as either assets or liabilities in the balance sheet and are measured at fair value with any change in fair value recognized in earnings in the period of change, unless the derivative qualifies as an effective hedge that offsets certain exposures. In determining fair value, we consider both the counterparty credit risk and our own creditworthiness, to the extent that the derivatives are not covered by collateral agreements with the respective counterparties.

Foreign Currency Derivatives. As a globally active enterprise, we are subject to risks associated with fluctuations in foreign currencies in our ordinary operations. This includes foreign currency-denominated receivables, payables, debt, and other balance sheet positions. We manage our balance sheet exposure on a group-wide basis primarily using foreign exchange forward contracts, options and cross-currency swaps.

Interest Rate Derivatives. We are using interest rate derivatives to align our portfolio of interest bearing assets and liabilities with our risk management objectives. We have entered into interest rate swaps in which we agreed to exchange, at specified intervals, the difference between fixed and floating interest amounts calculated by reference to an agreed-upon notional principal amount.

Further details of our derivative and hedging activities can be found in Note 13 to the accompanying consolidated financial statements.

Interest Rate Risk

At December 31, 2016, we had \$439.2 million in cash and cash equivalents as well as \$93.0 million in short-term investments. Interest income earned on our cash investments is affected by changes in the relative levels of market interest rates. We only invest in high-grade investment instruments. A hypothetical adverse 10% movement in market interest rates would not have materially impacted our financial statements.

Borrowings against lines of credit are at variable interest rates. We had no amounts outstanding against our lines of credit at December 31, 2016. A hypothetical adverse 10% movement in market interest rates would not have materially impacted our financial statements.

At December 31, 2016, we had \$1.1 billion in long-term debt, none of which is at a variable rate. Through the use of interest rate derivatives we have swapped \$200 million of our fixed rate debt into a variable interest rate based on the 3-months LIBOR. A hypothetical adverse 10% movement in market interest rates would not have materially impacted our financial statements, as the increased interest expense would have been off-set by increased interest income from our variable rate financial assets.

Foreign Currency Exchange Rate Risk

As a global enterprise, we are subject to risks associated with fluctuations in foreign currencies with regard to our ordinary operations. This includes foreign currency-denominated receivables, payables, debt, and other balance sheet positions as well as future cash flows resulting from anticipated transactions including intra-group transactions.

A significant portion of our revenues and expenses are earned and incurred in currencies other than the U.S. dollar. The euro is the most significant such currency, with others including the British pound, Japanese yen, Chinese renminbi, Swiss franc, and Canadian and Australian dollars. Fluctuations in the value of the currencies in which we conduct our business relative to the U.S. dollar have caused and will continue to cause U.S. dollar translations of such currencies to vary from one period to another. Due to the number of currencies involved, the constantly changing currency exposures, and the potential substantial volatility of currency exchange rates, we cannot predict the effect of exchange rate fluctuations upon future operating results. In general terms, depreciation of the U.S. dollar against our other foreign currencies will increase reported net sales. However, this effect is, at least partially, offset by the fact that we also incur substantial expenses in foreign currencies.

We have significant production and manufacturing facilities located in Germany and intercompany sales of inventory also expose us to foreign currency exchange rate risk. Intercompany sales of inventory are generally denominated in the local currency of the subsidiary purchasing the inventory in order to centralize foreign currency risk with the manufacturing subsidiary. We use an in-house bank approach to net and settle intercompany payables and receivables as well as intercompany foreign exchanged swaps and forward contracts in order to centralize the foreign exchange rate risk to the extent possible. We have entered in the past and may enter in the future into foreign exchange derivatives including forwards, swaps and options to manage the remaining foreign exchange exposure.

Item 12. Description of Securities Other than Equity Securities

Not applicable.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

Not applicable.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

Not applicable.

Item 15. Controls and Procedures

Disclosure Controls and Procedures

Our Managing Directors, with the assistance of other members of management, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as that term is defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended, within 90 days of the date of this report. Based on that evaluation, they concluded that as of December 31, 2016, our disclosure controls and procedures were 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 Managing Directors, as appropriate to allow timely decisions regarding required disclosure.

There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, no matter how well designed, such as the possibility of human error and the circumvention or overriding of the controls and procedures. Therefore, even those systems determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance of achieving their control objectives. In addition, any determination of effectiveness of controls is not a projection of any effectiveness of those controls to future periods, as those controls may become inadequate because of changes in conditions or the degree of compliance with the policies or procedures may deteriorate.

Report of Management on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended. The Company's system of internal controls over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the consolidated financial statements in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Our management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. In making this assessment, management used the updated criteria set forth in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in Internal Control-Integrated Framework.

Based on our assessment under the COSO Internal Control-Integrated Framework, management believes that, as of December 31, 2016, our internal control over financial reporting is effective.

Attestation Report of the Independent Registered Public Accounting Firm

KPMG AG Wirtschaftsprüfungsgesellschaft, the independent registered public accounting firm that audited our consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP) as of and for the year ended December 31, 2016, has also audited the effectiveness of the Company's internal control over financial reporting as of December 31, 2016. Their report is included in this Annual Report on Form 20-F on page F-3.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting during 2016 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

The Supervisory Board has designated Mr. Lawrence Rosen as an “audit committee financial expert” as that term is defined in the SEC rules adopted pursuant to the Sarbanes-Oxley Act. Mr. Rosen is “independent” as defined in the Marketplace Rules of the NASDAQ as applicable to Audit Committees.

Item 16B. Code of Ethics

QIAGEN has in place a Code of Conduct which qualifies as a code of ethics, as required by SEC and NASDAQ Marketplace Rules. The Code of Conduct applies to all of QIAGEN’s employees, including our principal executive officer, principal financial officer, principal accounting officer or controller and other persons performing similar functions. The full text of the Code of Conduct is available on our website at www.qiagen.com.

Item 16C. Principal Accountant Fees and Services***Audit Committee Pre-Approval Policies and Procedures***

The Audit Committee has adopted a policy that requires the pre-approval of all services performed for us by our independent registered public accounting firm. Additionally, the Audit Committee has delegated to the Committee Chairman full authority to approve any management request for pre-approval, provided the Chairman presents any approval given at its next scheduled meeting. All audit-related services, tax services and other services rendered by our independent registered public accounting firm or their affiliates were pre-approved by the Audit Committee and are compatible with maintaining the auditor’s independence.

Set forth below are the total fees billed (or expected to be billed), on a consolidated basis, by the independent registered public accounting firm or their affiliates for providing audit and other professional services in each of the last two years:

(in millions)	2016	2015
Audit fees	\$ 1.9	\$ 1.9
<i>-consolidated financial statements</i>	<i>1.2</i>	<i>1.3</i>
<i>-statutory financial statements</i>	<i>0.7</i>	<i>0.6</i>
Audit-related fees	0.5	0.1
Total	<u>\$ 2.4</u>	<u>\$ 2.0</u>

Audit fees consist of fees and expenses billed for the annual audit and quarterly review of QIAGEN’s consolidated financial statements. They also include fees billed for other audit services, which are those services that only the statutory auditor can provide, and include the review of documents filed with the Securities Exchange Commission.

Audit-related fees consist of fees and expenses billed for assurance and related services that are related to the performance of the audit or review of QIAGEN’s financial statements and include consultations concerning financial accounting and reporting standards and review of the opening balance sheets of newly acquired companies.

Tax fees include fees and expenses billed for tax compliance services, including assistance on the preparation of tax returns and claims for refund; tax consultations, such as assistance and representation in connection with tax audits and appeals. All other fees include various fees and expenses billed for services as approved by the Audit Committee and as permitted by the Sarbanes-Oxley Act of 2002. Tax fees for the year ended December 31, 2016 totaled less than \$50,000.

Item 16D. Exemptions From the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.

Item 16F. Change in Registrant’s Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

We recognize the importance of clear and straightforward rules on corporate governance and, where appropriate, have adapted our internal organization and processes to these rules. This section provides an overview of QIAGEN's corporate governance structure and includes details of the information required under the Dutch Corporate Governance Code (the Dutch Code). The Dutch Code is applicable to QIAGEN N.V. (in the following also referred to as the "Company"), as it is a publicly listed company incorporated under the laws of The Netherlands with a registered seat in Venlo, The Netherlands. The Dutch Code contains the principles and concrete provisions which the persons involved in a listed company (including Managing Board members and Supervisory Board members) and stakeholders should observe in relation to one another.

Our corporate governance practices generally derive from the provisions of the Dutch Civil Code and the Dutch Corporate Governance Code. Further, due to our listing on the NASDAQ exchange in the U.S., the Managing Board and the Supervisory Board of QIAGEN N.V. declared their intention to disclose in QIAGEN's Annual Reports the Company's compliance with the corporate governance practices followed by U.S. companies under the NASDAQ listing standards or state the deviations recorded in the period.

A brief summary of the principal differences follows.

Corporate Structure

QIAGEN is a 'Naamloze Vennootschap,' or N.V., a Dutch limited liability company similar to a corporation in the United States. QIAGEN has a two-tier board structure. QIAGEN is managed by a Managing Board consisting of executive management acting under the supervision of a Supervisory Board (non-executives), similar to a Board of Directors in a U.S. corporation. It is in the interest of QIAGEN and all its stakeholders that each Board performs its functions appropriately and that there is a clear division of responsibilities between the Managing Board, the Supervisory Board, the general meeting of shareholders (General Meeting) and the external auditor in a well-functioning system of checks and balances.

Managing Board

General

The Managing Board manages QIAGEN and is responsible for defining and achieving QIAGEN's aims, strategy, policies and results. The Managing Board is also responsible for complying with all relevant legislation and regulations as well as for managing the risks associated with the business activities and the financing of QIAGEN. It reports related developments to and discusses the internal risk management and control systems with the Supervisory Board and the Audit Committee. The Managing Board is accountable for the performance of its duties to the Supervisory Board and the General Meeting of Shareholders (General Meeting). The Managing Board provides the Supervisory Board with timely information necessary for the exercise of the duties of the Supervisory Board. In discharging its duties, the Managing Board takes into account the interests of QIAGEN, its enterprises and all parties involved in QIAGEN, including shareholders and other stakeholders.

Composition and Appointment

The Managing Board consists of one or more members as determined by the Supervisory Board. The members of the Managing Board are appointed by the General Meeting upon the joint meeting of the Supervisory Board and the Managing Board (the Joint Meeting) having made a binding nomination for each vacancy. However, the General Meeting may at all times overrule the binding nature of such a nomination by a resolution adopted by at least a two-thirds majority of the votes cast, if such majority represents more than half the issued share capital. Managing Directors are appointed annually for the period beginning on the date following the Annual General Meeting up to and including the date of the Annual General Meeting held in the following year.

Members of the Managing Board may be suspended and dismissed by the General Meeting by a resolution adopted by a two-thirds majority of the votes cast, if such majority represents more than half of the issued share capital, unless the proposal was made by the Joint Meeting, in which case a simple majority of votes cast is sufficient. Furthermore, the Supervisory Board may at any time suspend (but not dismiss) a member of the Managing Board.

Conflicts of Interest, Loans or Similar Benefits

Resolutions to enter into transactions under which members of the Managing Board could have a conflict of interest with QIAGEN, and which are of material significance to QIAGEN and/or the relevant member of the Managing Board, require the approval of the Supervisory Board. QIAGEN has not entered into any such transactions in 2016. No credit, loans or similar benefits were granted to members of the Managing Board. Additionally, the Managing Board Members did not receive any benefits from third parties that were either promised or granted in view of their position as members of the Managing Board.

Further information on our Managing Directors can be found in Item 6 of this Annual Report.

Supervisory Board

General

The Supervisory Board supervises the policies of the Managing Board, the general course of QIAGEN's affairs and strategy and the business enterprises which we operate. The Supervisory Board assists the Managing Board by providing advice relating to the business activities of QIAGEN. In 2016, the Supervisory Board had five regular meetings that were held with the attendance of the Managing Board, while certain agenda items were discussed exclusively between the Supervisory Board members. In discharging its duties, the Supervisory Board takes into account the interests of QIAGEN, its enterprise and all parties involved in QIAGEN, including shareholders and other stakeholders. The Supervisory Board is responsible for the quality of its own performance. In this respect, the Supervisory Board conducts a self-evaluation on an annual basis. Our Supervisory Board has specified matters requiring its approval, including decisions and actions which would fundamentally change the company's assets, financial position or results of operations. The Supervisory Board has appointed an Audit Committee, a Compensation Committee, a Selection and Appointment (Nomination) Committee and a Science and Technology Committee from among its members and can appoint other committees as deemed beneficial. The Supervisory Board has approved charters pursuant to which each of the committees operates.

Composition and Appointment

The Supervisory Board consists of at least three members, or a larger number as determined by the Joint Meeting. Members of the Supervisory Board are appointed by the General Meeting upon the Joint Meeting having made a binding nomination for each vacancy. However, the General Meeting may at all times overrule the binding nature of such a nomination by a resolution adopted by at least a two-thirds majority of the votes cast, if such majority represents more than half the issued share capital.

The Supervisory Board shall be composed in a way that enables it to carry out its duties properly and enables its members to act critically and independently of one another and of the Managing Board and any particular interests. To that effect, the Supervisory Board has adopted a profile of its size and composition that takes into account the nature of our business, our activities and the desired expertise and background of the members of the Supervisory Board. The current profile of the Supervisory Board can be found on our website. The Supervisory Board has appointed a chairman from its members who has the duties assigned to him by the Articles of Association and the Dutch Code.

Members of the Supervisory Board are appointed annually for the period beginning on the date following the General Meeting up to and including the date of the General Meeting held in the following year. Members of the Supervisory Board may be suspended and dismissed by the General Meeting by a resolution adopted by a two-thirds majority of the votes cast, if such majority represents more than half of the issued share capital, unless the proposal was made by the Managing Board and the Supervisory Board in which case a simple majority of votes cast is sufficient.

Conflicts of Interest, Loans or Similar Benefits

Resolutions to enter into transactions under which members of the Supervisory Board could have a conflict of interest with QIAGEN, and which are of material significance to QIAGEN and/or the relevant member of the Supervisory Board, require the approval of the Supervisory Board plenum. In 2016, neither QIAGEN nor its Supervisory Board members have entered into any such transactions. No credit, loans or similar benefits were granted to members of the Supervisory Board. Additionally, the Supervisory Board Members did not receive any benefits from third parties that were either promised or granted in view of their position as members of the Supervisory Board.

Further information on our Supervisory Directors can be found in Item 6 of this Annual Report.

Additional Information

Shareholders

Our shareholders exercise their voting rights through Annual and Extraordinary General Meetings. Resolutions of the General Meeting are adopted by an absolute majority of votes cast, unless a different majority of votes or quorum is required by Dutch law or the Articles of Association. Each common share confers the right to cast one vote.

Furthermore, the Managing Board, or where appropriate, the Supervisory Board, shall provide all shareholders and other parties in the financial markets with equal and simultaneous information about matters that may influence QIAGEN's share price.

QIAGEN is required to convene an Annual General Meeting in the Netherlands no later than six months following the end of each year. The agenda for the Annual General Meeting must contain certain matters as specified in QIAGEN's Articles of Association and under Dutch law, including, among other things, the adoption of QIAGEN's annual financial statements.

Additional Extraordinary General Meetings may be convened at any time by the Managing Board, the Supervisory Board or by one or more shareholders jointly representing at least 40% of QIAGEN's issued share capital. Furthermore, one or more shareholders, who jointly represent at least 10% of QIAGEN's issued share capital may, on their application, be authorized by the district court judge having applications for interim relief, to convene a General Meeting. Shareholders are entitled to

propose items for the agenda of the General Meeting provided that they hold at least 3% of the issued share capital. Proposals for agenda items for the General Meeting must be submitted at least 60 days prior to the meeting date. The notice convening a General Meeting, accompanied by the agenda, shall be sent no later than 42 days prior to the meeting. QIAGEN informs the General Meeting by means of explanatory notes to the agenda, providing all facts and circumstances relevant to the proposed resolutions.

Independence

Unlike the NASDAQ listing standards which require a majority of the Supervisory Board members to be independent, the Dutch Corporate Governance Code recommends that all Supervisory Board members, with the exception of not more than one person, shall be independent within the meaning of its “best practice” provision. In some cases the Dutch independence requirement is more stringent, such as by requiring a longer “look back” period (five years) for former executive directors. In other cases, the NASDAQ rules are more stringent, such as a broader definition of disqualifying affiliations. Currently, a majority of our Supervisory Board are “independent” under both the NASDAQ and Dutch definitions.

Independent Auditors

In accordance with the requirements of Dutch law, our independent registered public accounting firm for our statutory consolidated financial statements prepared in accordance with International Financial Reporting Standards and filed with the Netherlands Authority for the Financial Markets (AFM), is appointed, and may be removed by, the General Meeting. The Supervisory Board nominates a candidate for the appointment as external auditor, for which purpose both the Audit Committee and the Managing Board advise the Supervisory Board. At the Annual General Meeting in 2016, KPMG Accountants N.V. was appointed as external auditor for the Company for 2016 year. The external auditor is invited to attend the meeting of the Supervisory Board at which the statutory financial statements prepared in accordance with International Financial Reporting Standards and filed with the AFM shall be approved and is furthermore invited to attend the General Meeting at which the statutory financial statements are adopted and may be questioned by the General Meeting on its statement on the fairness of our annual accounts prepared in accordance with International Financial Reporting Standards.

Following the appointment of KPMG Accountants N.V. for the audit of our statutory consolidated financial statements, the external auditor for our consolidated financial statements prepared under U.S. generally accepted accounting principles is KPMG AG Wirtschaftsprüfungsgesellschaft who audited the consolidated financial statements as of and for the year ended December 31, 2016 contained in this annual report.

The remuneration of the external auditor, and instructions to the external auditor to provide non-audit services, shall be approved by the Supervisory Board on the recommendation of the Audit Committee and after consultation with the Managing Board. At least once every four years, the Supervisory Board and the Audit Committee shall conduct a thorough assessment of the functioning of the external auditor. The main conclusions of this assessment shall be communicated to the General Meeting for the purposes of assessing the nomination for the appointment of the external auditor.

Whistleblower Policy and Code of Conduct

We have a formal Whistleblower Policy concerning the reporting of alleged irregularities within QIAGEN of a general, operational or financial nature. Furthermore, we have a published Code of Conduct that outlines business principles for our employees and rules of conduct. The Code of Conduct can be found on our website at www.qiagen.com.

Anti-Takeover Measures

In 2004, the Supervisory Board granted an option to the Dutch Foundation Stichting Preferente Aandelen QIAGEN that allows the Foundation to acquire preference shares from QIAGEN if (i) a person has (directly or indirectly) acquired or has expressed a desire to acquire more than 20% of our issued share capital, or (ii) a person holding at least a 10% interest in the share capital has been designated as a hostile person by our Supervisory Board. The option enables the Foundation to acquire preference shares equal to the number of our outstanding common shares at the time of the relevant exercise of the right, less one share. When exercising the option and exercising its voting rights on these shares, the Foundation must act in the interest of QIAGEN and the interests of our stakeholders. No preference shares are currently outstanding.

Dutch Corporate Governance Code--Comply or Explain

The corporate governance structure and compliance with the Dutch Code is the joint responsibility of the Managing Board and the Supervisory Board. They are accountable for this responsibility to the General Meeting. We continue to seek ways to improve our corporate governance by measuring itself against international best practice. The Dutch Code was last amended on December 8, 2016, and can be found at www.commissiecorporategovernance.nl.

Non-application of a specific best practice provision is not in itself considered objectionable by the Dutch Code and may well be justified because of particular circumstances relevant to a company. In accordance with Dutch law, we disclose in our Annual Report the application of the Dutch Code's principles and best practice provisions.

To the extent that we do not apply certain principles and best practice provisions, or do not intend to apply these in the current or the subsequent year, we state the reasons.

We take a positive view of the Dutch Code and apply nearly all of the best practice provisions. However, we prefer not to apply some provisions due to the international character of our business as well as the fact - acknowledged by the Commission that drafted the Dutch Code - that existing contractual agreements between QIAGEN and individual members of the Managing Board cannot be set aside at will.

The following provides an overview of exceptions that we have identified:

1. *Best practice provision II.1.1 recommends that a management board member is appointed for a maximum period of four years. A member may be reappointed for a term of not more than four years at a time.*

Members of the Managing Board are appointed annually for a one-year period beginning on the day following the General Meeting up to and including the day of the General Meeting held in the following year.

2. *Best practice provision II.2.4 recommends that the number of granted options shall be dependent on the achievement of challenging targets specified beforehand.*

On June 25, 2014 the Annual General Meeting approved amendments to the remuneration policy of the Managing Board ("Remuneration Policy") which state that grants of stock options shall no longer be made on a regular basis and shall be reserved for use as special equity incentive rewards in certain situations. No stock options were granted to the members of the Managing Board in 2016.

3. *Best practice provision II.2.5 recommends that shares granted to management board members without financial consideration shall be retained for a period of at least five years or until at least at the end of the employment, if this period is shorter. The number of shares to be granted shall be dependent on the achievement of clearly quantifiable and challenging targets specified beforehand.*

Pursuant to the Company's Remuneration Policy, long-term equity-based grants to members of the Managing Board under the 2014 Plan primarily consist of an award of performance stock units, i.e. long-term incentive awards which are dependent upon the achievement of pre-defined performance goals. Grants of restricted stock units, which are based on time vesting only, are no longer to be granted on a regular basis and shall be reserved for use as special equity incentive rewards in certain situations. Performance stock units and restricted stock units are basically structured so that 40% of a grant vests after three years, 50% after five years and the remaining 10% after ten years. In 2015 and 2016, the members of the Managing Board elected to receive in lieu of their cash bonus the value earned in these years in performance stock units and restricted stock units respectively which vested over two years from the grant date.

4. *Best practice provision II.2.8 recommends that the maximum remuneration in the event of dismissal of a management board member may not exceed one year's salary (the "fixed" remuneration component). If the maximum of one year's salary would be manifestly unreasonable for a management board member who is dismissed during his first term of office, such board member shall be eligible for a severance pay not exceeding twice the annual salary.*

Our Managing Board members have entered into employment agreements with QIAGEN N.V. and some QIAGEN affiliates for which they hold managing positions. In case of termination of an agreement without serious cause as defined by the applicable law, the respective affiliate would remain obliged to compensate the Managing Board member for the remaining term of the employment agreement. QIAGEN believes that these contractual arrangements are well justified due to the long tenures of the Managing Board members.

5. *Best practice provision III.3.5 recommends that a person may be appointed to the supervisory board for a maximum of three 4-year terms.*

Prof. Karobath has been a member of the Supervisory Board of QIAGEN N.V. since 2000. Prof. Karobath contributes profound scientific and industry experience from various management positions in the pharmaceutical industry to the board profile. He has a unique knowledge about QIAGEN which is considered to be highly valuable. As a result, QIAGEN strongly supports the reappointment Prof. Karobath beyond the 12-year term as recommended by the Dutch Code.

6. *Best practice provision III.3.6 recommends that the supervisory board shall draw up a retirement schedule in order to avoid, as far as possible, a situation in which many supervisory board members retire at the same time. The retirement schedule shall be made generally available and shall be posted on the company's website.*

The Supervisory Board follows the practice to discuss retirement plans of individual members early to proactively manage continuity within the Supervisory Board. QIAGEN believes that this practice provides a more flexible and better succession planning than a fixed retirement schedule.

7. *Best practice provision III.7.1 recommends that a supervisory board member may not be granted any shares and/or rights to shares by way of remuneration.*

QIAGEN has granted stock options to the members of the Supervisory Board as a remuneration component since its establishment. Since 2007, Supervisory Board members have also been granted restricted stock units. We believe that the reasonable level of equity based compensation which we practice allows a positive alignment of shareholder interests with the other duties of the Supervisory Board and that this practice is necessary to attract and retain Supervisory Board members as the granting of share-based compensation to Supervisory Board members is a common practice in our industry.

8. *Best practice provision IV.1.1 recommends that a general meeting of shareholders is empowered to cancel binding nominations of candidates for the management board and supervisory board, and to dismiss members of either board by a simple majority of votes of those in attendance, although the company may require a quorum of at least one third of the voting rights outstanding for such vote to have force. If such quorum is not represented, but a majority of those in attendance votes in favor of the proposal, a second meeting may be convened and its vote will be binding, even without a one-third quorum.*

Our Articles of Association currently state that the General Meeting may at all times overrule a binding nomination by a resolution adopted by at least a two-thirds majority of the votes cast, if such majority represents more than half of the issued share capital. Although a deviation from provision IV.1.1 of the Dutch Code, the Supervisory Board and the Managing Board hold the view that these provisions will enhance the continuity of QIAGEN's management and policies.

NASDAQ Exemptions

Exemptions from the NASDAQ corporate governance standards are available to foreign private issuers, such as QIAGEN when those standards are contrary to a law, rule or regulation of any public authority exercising jurisdiction over such issuer or contrary to generally accepted business practices in the issuer's country of domicile. In connection with QIAGEN's initial public offering, NASDAQ granted QIAGEN exemptions from certain corporate governance standards that are contrary to the laws, rules, regulations or generally accepted business practices of The Netherlands. These exemptions and the practices followed by QIAGEN are described below:

- QIAGEN is exempt from NASDAQ's quorum requirements applicable to meetings of ordinary shareholders. In keeping with the law of The Netherlands and generally accepted business practices in The Netherlands, QIAGEN's Articles of Association provide that there are no quorum requirements generally applicable to meetings of the General Meeting.
- QIAGEN is exempt from NASDAQ's requirements regarding the solicitation of proxies and provision of proxy statements for meetings of the General Meeting. QIAGEN does furnish proxy statements and solicit proxies for meetings of shareholders. Dutch corporate law sets a mandatory (participation and voting) record date for Dutch listed companies fixed at the twenty-eighth day prior to the day of the shareholders' meeting. Shareholders registered at such record date are entitled to attend and exercise their rights as shareholders at the General Meeting, regardless of a sale of shares after the record date.
- QIAGEN is exempt from NASDAQ's requirements that shareholder approval be obtained prior to the establishment of, or material amendments to, stock option or purchase plans and other equity compensation arrangements pursuant to which options or stock may be acquired by directors, officers, employees or consultants. QIAGEN is also exempt from NASDAQ's requirements that shareholder approval be obtained prior to certain issuances of stock resulting in a change of control, occurring in connection with acquisitions of stock or assets of another company or issued at a price less than the greater of book or market value other than in a public offering. QIAGEN's Articles of Association do not require approval of the General Meeting prior to the establishment of a stock plan. The Articles of Association also permit the General Meeting to grant the Supervisory Board general authority to issue shares without further approval of the General Meeting. QIAGEN's General Meeting has granted the Supervisory Board general authority to issue up to a maximum of our authorized capital without further approval of the General Meeting. QIAGEN plans to seek approval of the General Meetings for stock plans and stock issuances only where required under the law of The Netherlands or under QIAGEN's Articles of Association.

Further Information

For additional information regarding our Boards, including the Audit and other Committees of our Supervisory Board, please refer to the discussion in Item 6 above.

Item 16H. Mine Safety Disclosure

Not applicable.

PART III

Item 17. Financial Statements

See Item 18.

Item 18. Financial Statements

See pages F-1 through F-48 included herein.

(A) The following financial statements, together with the reports of KPMG and Ernst & Young thereon, are filed as part of this annual report:

Report of Independent Registered Public Accounting Firm	F- 1
Report of Independent Registered Public Accounting Firm	F- 2
Report of Independent Registered Public Accounting Firm	F- 3
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Consolidated Statements of Income	F- 6
Consolidated Statements of Comprehensive Income (Loss)	F- 7
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Item 19. Exhibits

*1.1	Articles of Association as confirmed by notarial deed as of January 24, 2017 (English translation)
2.4	\$400 Million Note Purchase Agreement dated as of October 16, 2012 (filed as Exhibit 2.9) (1)
2.5	2019 Bonds Indenture dated March 19, 2014 (Filed as Exhibit 2.7) (2)
2.6	2021 Bonds Indenture dated March 19, 2014 (Filed as Exhibit 2.8) (2)
2.7	2019 Form of Warrant Confirmation dated March 12, 2014 (Filed as Exhibit 2.9) (2)
2.8	2021 Form of Warrant Confirmation dated March 12, 2014 (Filed as Exhibit 2.10) (2)
2.9	2019 Form of Bond Hedge Confirmation dated March 12, 2014 (Filed as Exhibit 2.11) (2)
2.10	2021 Form of Bond Hedge Confirmation dated March 12, 2014 (Filed as Exhibit 2.12) (2)
4.1	Lease Between QIAGEN GmbH and Gisantus Grundstuecksverwaltungsgesellschaft mbH, dated January 13, 1997 (the “Max-Volmer-Strasse 4 Lease”) (Filed as Exhibit 10.3) (3)
4.2	The Max-Volmer-Strasse 4 Lease Summary (Filed as Exhibit 10.3(a)) (3)
4.3	QIAGEN N.V. Amended and Restated 2005 Stock Plan (Filed as Exhibit 99.1) (4)
4.4	QIAGEN N.V. 2014 Stock Plan (Filed as Exhibit 99.1) (5)
*8.1	List of Subsidiaries
*12.1	Certification under Section 302; Peer M. Schatz, Managing Director and Chief Executive Officer
*12.2	Certification under Section 302; Roland Sackers, Managing Director and Chief Financial Officer
*13.1	Certifications under Section 906; Peer M. Schatz, Managing Director and Chief Executive Officer and Roland Sackers, Managing Director and Chief Financial Officer
*15.1	Consent of Independent Registered Public Accounting Firm
*15.2	Consent of Independent Registered Public Accounting Firm
†*101	XBRL Interactive Data File

* Filed herewith.

† Pursuant to Rule 406(T) of Regulation S-T, the Interactive Data Files on Exhibit 101 hereto are deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933 as amended, are deemed not filed for purposes of Section 18 of the Securities and Exchange Act of 1934, as amended, and otherwise are not subject to liability under those sections.

- (1) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed with the Securities and Exchange Commission on March 1, 2013.
- (2) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed with the Securities and Exchange Commission on March 2, 2015.
- (3) Incorporated by reference to Form 20-F Annual Report of QIAGEN N.V. filed with the Securities and Exchange Commission on March 31, 2000.
- (4) Incorporated by reference to Registration Statement of QIAGEN N.V. on Form S-8 filed with the Securities and Exchange Commission on November 17, 2011.
- (5) Incorporated by reference to Registration Statement of QIAGEN N.V. on Form S-8 filed with the Securities and Exchange Commission on April 2, 2015.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Dated: March 3, 2017

QIAGEN N.V.

By: /s/ Peer M. Schatz

Peer M. Schatz, Chief Executive
Officer

/s/ Roland Sackers

Roland Sackers, Chief Financial
Officer

QIAGEN N.V. AND SUBSIDIARIES
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board of QIAGEN N.V.:

We have audited the accompanying consolidated balance sheets of QIAGEN N.V. and subsidiaries (“the Company”) as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income (loss), changes in equity, and cash flows for each of the years in the two-year period ended December 31, 2016. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule as listed in Item 18 (A). These consolidated financial statements and the financial statement schedule are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements and the financial statement schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of QIAGEN N.V. and subsidiaries as of December 31, 2016 and 2015, and the results of their operations and their cash flows for each of the years in the two-year period ended December 31, 2016, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, in 2016, the Company changed its accounting method of share-based compensation from a straight-line attribution method for expense recognition to an accelerated attribution method. The Company applied this change in accounting principle retrospectively to all prior periods presented.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), QIAGEN N.V.’s internal control over financial reporting as of December 31, 2016, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 3, 2017 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Düsseldorf, Germany

March 3, 2017

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board and Shareholders of QIAGEN N.V. and Subsidiaries

We have audited the accompanying consolidated statements of income, comprehensive income, changes in equity and cash flows of QIAGEN N.V. and Subsidiaries for the year ended December 31, 2014. Our audit also included the financial statement schedule listed in the Index at Item 18(A). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audit.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated results of their operations and their cash flows for the year ended December 31, 2014, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

February 27, 2015

Except for Note 20 as to which the date is March 3, 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft
Düsseldorf, Germany

/s/ Hendrik Hollweg
Wirtschaftsprüfer
[German Public Auditor]

/s/ Tobias Schlebusch
Wirtschaftsprüfer
[German Public Auditor]

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Supervisory Board of QIAGEN N.V.:

We have audited QIAGEN N.V.'s ("QIAGEN" or "the Company") internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying 'Report of Management on Internal Control over Financial Reporting'. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, QIAGEN N.V. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of QIAGEN N.V. and subsidiaries as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income (loss), changes in equity, and cash flows for each of the years in the two-year period ended December 31, 2016, and the related financial statement schedule as listed in Item 18 (A), and our report dated March 3, 2017 expressed an unqualified opinion on those consolidated financial statements and the related financial statement schedule as listed in Item 18 (A).

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Düsseldorf, Germany

March 3, 2017

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands)

	Note	As of December 31,	
		2016	2015
Assets			
Current assets:			
Cash and cash equivalents	(3)	\$ 439,180	\$ 290,011
Short-term investments	(7)	92,999	130,817
Accounts receivable, net of allowance for doubtful accounts of \$7,614 and \$7,255 in 2016 and 2015, respectively	(3)	278,244	273,853
Income taxes receivable		23,795	26,940
Inventories, net	(3)	136,552	136,586
Prepaid expenses and other current assets	(8)	66,799	70,121
Deferred income taxes	(16)	—	33,068
Total current assets		1,037,569	961,396
Long-term assets:			
Property, plant and equipment, net of accumulated depreciation of \$451,160 and \$409,634 in 2016 and 2015, respectively	(9)	436,655	442,944
Goodwill	(11)	1,925,518	1,875,698
Intangible assets, net of accumulated amortization of \$948,072 and \$827,084 in 2016 and 2015, respectively	(11)	557,159	636,421
Deferred income taxes	(16)	68,384	2,036
Other long-term assets (of which \$13,067 and \$7,472 in 2016 and 2015 due from related parties, respectively)	(10, 13, 22)	282,909	260,622
Total long-term assets		3,270,625	3,217,721
Total assets		\$ 4,308,194	\$ 4,179,117

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

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(in thousands, except par value)

	<u>Note</u>	<u>As of December 31,</u>	
		<u>2016</u>	<u>2015</u>
Liabilities and equity			
Current liabilities:			
Accounts payable		\$ 51,218	\$ 52,306
Accrued and other current liabilities (of which \$3,926 in 2016 due to related parties)	(10, 22)	230,305	192,069
Income taxes payable		26,906	21,515
Deferred income taxes	(16)	—	2,463
Total current liabilities		308,429	268,353
Long-term liabilities:			
Long-term debt, net of current portion	(15)	1,067,096	1,049,026
Deferred income taxes	(16)	40,621	69,610
Other long-term liabilities (of which \$5,889 in 2016 due to related parties)	(10, 13, 22)	284,952	224,058
Total long-term liabilities		1,392,669	1,342,694
Commitments and contingencies	(19)		
Equity:			
Preference shares, 0.01 EUR par value, authorized—450,000 shares, no shares issued and outstanding		—	—
Financing preference shares, 0.01 EUR par value, authorized—40,000 shares, no shares issued and outstanding		—	—
Common Shares, 0.01 EUR par value, authorized—410,000 shares, issued — 239,707 shares in 2016 and 2015		2,812	2,812
Additional paid-in capital		1,794,665	1,765,595
Retained earnings		1,263,464	1,209,197
Accumulated other comprehensive loss	(17)	(333,839)	(259,156)
Less treasury shares, at cost— 5,147 and 6,702 shares in 2016 and 2015, respectively	(17)	(120,006)	(152,412)
Equity attributable to the owners of QIAGEN N.V.		2,607,096	2,566,036
Noncontrolling interest		—	2,034
Total equity		2,607,096	2,568,070
Total liabilities and equity		\$ 4,308,194	\$ 4,179,117

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

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
(in thousands, except per share data)

	Note	Years ended December 31,		
		2016	2015	2014
Net sales	(3, 4)	\$ 1,337,991	\$ 1,280,986	\$ 1,344,777
Cost of sales		493,338	454,328	479,570
Gross profit		<u>844,653</u>	<u>826,658</u>	<u>865,207</u>
Operating expenses:				
Research and development	(3)	176,135	146,830	163,666
Sales and marketing		401,352	359,598	376,141
General and administrative, integration and other	(3)	129,248	102,066	126,637
Acquisition-related intangible amortization		39,091	38,666	37,070
Total operating expenses		<u>745,826</u>	<u>647,160</u>	<u>703,514</u>
Income from operations		<u>98,827</u>	<u>179,498</u>	<u>161,693</u>
Other income (expense):				
Interest income		6,776	4,753	3,964
Interest expense		(39,022)	(37,396)	(39,330)
Other expense, net	(6)	(9,673)	(10,552)	(6,938)
Total other expense, net		<u>(41,919)</u>	<u>(43,195)</u>	<u>(42,304)</u>
Income before income taxes		<u>56,908</u>	<u>136,303</u>	<u>119,389</u>
Income taxes	(3, 16)	<u>(23,395)</u>	<u>6,401</u>	<u>2,456</u>
Net income		<u>80,303</u>	<u>129,902</u>	<u>116,933</u>
Net (loss) income attributable to noncontrolling interest		<u>(101)</u>	<u>(246)</u>	<u>568</u>
Net income attributable to the owners of QIAGEN N.V.		<u>\$ 80,404</u>	<u>\$ 130,148</u>	<u>\$ 116,365</u>
Basic net income per common share attributable to the owners of QIAGEN N.V.		<u>\$ 0.34</u>	<u>\$ 0.56</u>	<u>\$ 0.50</u>
Diluted net income per common share attributable to the owners of QIAGEN N.V.		<u>\$ 0.34</u>	<u>\$ 0.55</u>	<u>\$ 0.48</u>
Weighted-average common shares outstanding				
Basic	(18)	234,800	233,483	232,644
Diluted	(18)	238,993	238,647	242,806

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

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Note	Years ended December 31,		
		2016	2015	2014
Net income		\$ 80,303	\$ 129,902	\$ 116,933
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:				
(Losses) Gains on cash flow hedges, before tax	(13)	(3,969)	5,337	—
Reclassification adjustments on cash flow hedges, before tax	(13)	(6,228)	(5,273)	—
Cash flow hedges, before tax		(10,197)	64	—
(Losses) gains on marketable securities, before tax		(1,421)	1,215	—
Gains (losses) on pensions, before tax		929	(1,809)	(687)
Foreign currency translation adjustments, before tax		(65,910)	(124,639)	(131,326)
Other comprehensive loss, before tax		(76,599)	(125,169)	(132,013)
Income tax relating to components of other comprehensive loss		2,562	1,140	(57)
Total other comprehensive loss, after tax		(74,037)	(124,029)	(132,070)
Comprehensive income (loss)		6,266	5,873	(15,137)
Comprehensive (income) loss attributable to noncontrolling interest		(545)	(146)	959
Comprehensive income (loss) attributable to the owners of QIAGEN N.V.		\$ 5,721	\$ 5,727	\$ (14,178)

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

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in thousands)	Note	Common Shares		Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Treasury Shares		Equity Attributable to the Owners of QIAGEN N.V.	Non-controlling Interest	Total Equity
		Shares	Amount				Shares	Amount			
BALANCE AT DECEMBER 31, 2013		239,707	\$ 2,812	\$ 1,807,002	\$ 1,033,343	\$ (4,192)	(5,817)	\$(116,613)	\$ 2,722,352	\$ 9,539	\$ 2,731,891
Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests	(5)	—	—	—	—	—	—	—	—	(325)	(325)
Net income		—	—	—	116,365	—	—	—	116,365	568	116,933
Issuance of warrants	(17)	—	—	68,900	—	—	—	—	68,900	—	68,900
Unrealized loss, net on pension	(17)	—	—	—	—	(481)	—	—	(481)	—	(481)
Translation adjustment, net	(17)	—	—	—	—	(130,062)	—	—	(130,062)	(1,527)	(131,589)
Purchase of treasury shares	(17)	—	—	—	—	—	(5,558)	(126,889)	(126,889)	—	(126,889)
Issuance of common shares in connection with warrant exercise	(15)	—	—	—	(12,115)	—	1,373	30,917	18,802	—	18,802
Common stock issuances under employee stock plans	(20)	—	—	—	(33,264)	—	2,318	45,395	12,131	—	12,131
Excess tax benefit of employee stock plans		—	—	1,596	—	—	—	—	1,596	—	1,596
Share-based compensation	(20)	—	—	41,313	—	—	—	—	41,313	—	41,313
Proceeds from subscription receivables		—	—	536	—	—	—	—	536	—	536
Redemption of subscription receivables	(15)	—	—	(67,943)	—	—	—	—	(67,943)	—	(67,943)
BALANCE AT DECEMBER 31, 2014		239,707	\$ 2,812	\$ 1,851,404	\$ 1,104,329	\$ (134,735)	(7,684)	\$(167,190)	\$ 2,656,620	\$ 8,255	\$ 2,664,875
Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests		—	—	—	—	—	—	—	—	(6,367)	(6,367)
Net income		—	—	—	130,148	—	—	—	130,148	(246)	129,902
Unrealized loss, net on pension	(17)	—	—	—	—	(1,266)	—	—	(1,266)	—	(1,266)
Unrealized gain, net on hedging contracts	(13)	—	—	—	—	4,003	—	—	4,003	—	4,003
Realized gain, net on hedging contracts	(13)	—	—	—	—	(3,955)	—	—	(3,955)	—	(3,955)
Unrealized gain, net on marketable securities	(10)	—	—	—	—	1,215	—	—	1,215	—	1,215
Translation adjustment, net	(17)	—	—	—	—	(124,418)	—	—	(124,418)	392	(124,026)
Purchase of treasury shares	(17)	—	—	—	—	—	(842)	(20,818)	(20,818)	—	(20,818)
Issuance of common shares in connection with stock plan	(20)	—	—	—	(25,280)	—	1,824	35,596	10,316	—	10,316
Excess tax benefit of employee stock plans		—	—	3,328	—	—	—	—	3,328	—	3,328
Share-based compensation	(20)	—	—	23,761	—	—	—	—	23,761	—	23,761
Proceeds from subscription receivables		—	—	97	—	—	—	—	97	—	97
Redemption of subscription receivables	(15)	—	—	(112,995)	—	—	—	—	(112,995)	—	(112,995)
BALANCE AT DECEMBER 31, 2015		239,707	\$ 2,812	\$ 1,765,595	\$ 1,209,197	\$ (259,156)	(6,702)	\$(152,412)	\$ 2,566,036	\$ 2,034	\$ 2,568,070
Acquisition of QIAGEN Marseille S.A. shares from noncontrolling interests	(5)	—	—	—	—	—	—	—	—	(2,624)	(2,624)
Acquisition of Exiqon A/S	(5)	—	—	—	—	—	—	—	—	5,519	5,519
Acquisition of Exiqon A/S shares from noncontrolling interests	(5)	—	—	—	—	—	—	—	—	(5,474)	(5,474)
Net income		—	—	—	80,404	—	—	—	80,404	(101)	80,303
Unrealized gain, net on pension	(17)	—	—	—	—	650	—	—	650	—	650
Unrealized loss, net on hedging contracts	(13)	—	—	—	—	(2,977)	—	—	(2,977)	—	(2,977)
Realized gain, net on hedging contracts	(13)	—	—	—	—	(4,671)	—	—	(4,671)	—	(4,671)
Unrealized loss, net on marketable securities	(10)	—	—	—	—	(1,371)	—	—	(1,371)	—	(1,371)
Translation adjustment, net	(17)	—	—	—	—	(66,314)	—	—	(66,314)	646	(65,668)
Issuance of common shares in connection with stock plan	(20)	—	—	—	(26,137)	—	1,555	32,406	6,269	—	6,269
Excess tax benefit of employee stock plans		—	—	782	—	—	—	—	782	—	782
Share-based compensation	(20)	—	—	28,288	—	—	—	—	28,288	—	28,288
BALANCE AT DECEMBER 31, 2016		239,707	\$ 2,812	\$ 1,794,665	\$ 1,263,464	\$ (333,839)	(5,147)	\$(120,006)	\$ 2,607,096	\$ —	\$ 2,607,096

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

QIAGEN N.V. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	Note	Years ended December 31,		
		2016	2015	2014
Cash flows from operating activities:				
Net income		\$ 80,303	\$ 129,902	\$ 116,933
Adjustments to reconcile net income to net cash provided by operating activities, net of effects of businesses acquired:				
Depreciation and amortization		213,056	191,473	200,782
Non-cash acquisition, impairment and restructuring related costs	(6)	44,399	5,471	34,297
Amortization of debt discount and issuance costs		20,451	19,955	15,392
Share-based compensation expense	(20)	28,288	23,760	41,313
Excess tax benefits from share-based compensation		(782)	(3,328)	(1,596)
Deferred income taxes	(16)	(65,974)	(36,434)	(40,147)
Loss on early redemption of debt	(15)	—	7,564	4,560
(Gain) loss on marketable securities		(1,360)	6,039	3,914
Changes in fair value of contingent consideration	(14)	(6,501)	(5,225)	(1,165)
Other items, net including fair value changes in derivatives		19,435	2,609	(7,509)
Net changes in operating assets and liabilities:				
Accounts receivable	(3)	(12,238)	(24,764)	(16,561)
Inventories	(3)	(20,346)	(33,194)	(41,792)
Prepaid expenses and other current assets	(8)	6,640	52,315	(2,273)
Other long-term assets		3,549	2,730	(13,090)
Accounts payable		(1,466)	7,732	(5,495)
Accrued and other current liabilities	(12)	10,618	(25,570)	(21,482)
Income taxes	(16)	15,476	(88)	16,034
Other long-term liabilities		8,054	(3,450)	5,850
Net cash provided by operating activities		341,602	317,497	287,965
Cash flows from investing activities:				
Purchases of property, plant and equipment		(74,536)	(97,778)	(86,591)
Proceeds from sale of equipment		63	103	35
Purchases of intangible assets		(19,388)	(19,703)	(10,412)
Purchases of investments		(23,448)	(6,053)	(9,426)
Purchases of short-term investments	(7)	(496,304)	(317,570)	(420,158)
Proceeds from sales of short-term investments	(7)	533,847	367,714	275,779
Cash paid for acquisitions, net of cash acquired	(5)	(90,490)	(66,930)	(160,436)
Other investing activities		(8,800)	(5,983)	3,608
Net cash used in investing activities		(179,056)	(146,200)	(407,601)
Cash flows from financing activities:				
Purchase of call option related to cash convertible notes	(15)	—	—	(105,170)
Proceeds from issuance of warrants, net of issuance costs	(17)	—	—	68,900
Net proceeds from issuance of cash convertible notes and cash paid for issuance costs	(15)	—	(86)	716,967
Repayment of long-term debt	(15)	(6,738)	(251,868)	(387,050)
Principal payments on capital leases		(1,322)	(1,079)	(4,579)
Proceeds from subscription receivables		—	97	536
Excess tax benefits from share-based compensation		782	3,328	1,596
Proceeds from issuance of common shares		6,269	10,316	12,131
Purchase of treasury shares	(17)	—	(20,818)	(126,889)
Other financing activities		(9,595)	1,497	16,401
Net cash used in financing activities		(10,604)	(258,613)	192,843
Effect of exchange rate changes on cash and cash equivalents		(2,773)	(15,340)	(10,843)
Net increase (decrease) in cash and cash equivalents		149,169	(102,656)	62,364
Cash and cash equivalents, beginning of period		290,011	392,667	330,303
Cash and cash equivalents, end of period		\$ 439,180	\$ 290,011	\$ 392,667
Supplemental cash flow disclosures:				
Cash paid for interest		\$ 18,227	\$ 20,799	\$ 24,052
Cash paid for income taxes		\$ 22,670	\$ 34,441	\$ 12,539
Supplemental disclosure of non-cash investing and financing activities:				
Equipment purchased through capital lease		\$ 113	\$ 231	\$ 342
Intangible assets acquired in non-monetary exchange		\$ —	\$ 5,900	\$ —

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

QIAGEN N.V. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
DECEMBER 31, 2016

1. Corporate Information and Basis of Presentation

Corporate Information

QIAGEN N.V. is a public limited liability company ('naamloze vennootschap') under Dutch law with registered office at Hulsterweg 82, Venlo, The Netherlands. QIAGEN N.V., a Netherlands holding company, and subsidiaries (we, our or the Company) is the leading global provider of Sample to Insight solutions to transform biological materials into valuable molecular insights. Our sample technologies isolate and process DNA, RNA and proteins from blood, tissue and other materials. Assay technologies make these biomolecules visible and ready for analysis. Bioinformatics software and knowledge bases interpret data to report relevant, actionable insights. Automation solutions tie these together in seamless and cost-effective molecular testing workflows. We provide these workflows to four major customer classes: Molecular Diagnostics (human healthcare), Applied Testing (forensics, veterinary testing and food safety), Pharma (pharmaceutical and biotechnology companies) and Academia (life sciences research). We market our products in more than 130 countries.

Basis of Presentation

The accompanying consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles (GAAP) and all amounts are presented in U.S. dollars rounded to the nearest thousand, unless otherwise indicated. The consolidated financial statements have been prepared on a historical cost basis, except for derivative financial instruments, contingent consideration and available-for-sale financial instruments that have been measured at fair value.

On June 28, 2016, we acquired Exiqon A/S, located in Vedbaek, Denmark and on November 20, 2015, we acquired MO BIO Laboratories, Inc., located in Carlsbad, California. On December 16, 2014, we acquired Enzymatics Inc., located in Beverly, Massachusetts and on April 3, 2014, we acquired BIOBASE GmbH, located in Wolfenbüttel, Germany. Accordingly, at the acquisition dates, all of the assets acquired and liabilities assumed were recorded at their respective fair values and our consolidated results of operations include the operating results from the acquired companies from the acquisition dates.

Certain prior year amounts have been revised to reflect a change in attribution method of share-based compensation. See further discussion in the *Revision of Previously Issued Financial Statements for Change in Attribution Method* section of Note 20 - Share-Based Compensation. Additionally, for the year ended December 31, 2015, certain balance sheet amounts have been reclassified upon adoption of ASU 2015-03 as further discussed within Note 2 - Effects of New Accounting Pronouncements.

2. Effects of New Accounting Pronouncements

Adoption of New Accounting Standards

The following new FASB Accounting Standards Updates (ASU) were effective for the year ended December 31, 2016.

ASU 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis* modifies current guidance on consolidation under the variable interest model and the voting model. ASU 2015-02 became effective for us in the first quarter of 2016. The adoption did not have an impact on our consolidated financial statements.

ASU 2015-03, *Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs* requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. ASU 2015-03 does not address presentation or subsequent measurement of debt issuance costs related to line-of-credit arrangements. The FASB issued Accounting Standards Update No. 2015-15, *Interest - Imputation of Interest (Subtopic 835-30): Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements - Amendments to SEC Paragraphs Pursuant to Staff Announcement at June 18, 2015 EITF Meeting*. This ASU adds SEC paragraphs pursuant to the SEC Staff Announcement at the June 18, 2015 Emerging Issues Task Force meeting about the presentation and subsequent measurement of debt issuance costs associated with line-of-credit arrangements. Given the absence of authoritative guidance within ASU 2015-03 for debt issuance costs related to line-of-credit arrangements, the SEC staff indicated that it would not object to an entity deferring and presenting debt issuance costs as an asset and subsequently amortizing the deferred debt issuance costs ratably over the term of the line-of-credit arrangement, regardless of whether there are any outstanding borrowings on the line-of-credit arrangement. ASU 2015-03 became effective for us beginning in the first quarter of 2016 and was applied on a retrospective basis wherein the balance sheet of each period presented is adjusted to reflect the period-specific effects of applying the new guidance. As of December

31, 2015, the effect of the change in balance sheet presentation was a reduction in prepaid expenses and other current assets of \$0.2 million and a reduction in other long-term assets of \$10.3 million. These amounts are then presented net against the long-term debt liability.

ASU 2015-05, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Fees Paid in a Cloud Computing Arrangement* provides guidance to help entities determine whether a cloud computing arrangement contains a software license that should be accounted for as internal-use software or as a service contract. ASU 2015-05 became effective for our financial statements beginning in the first quarter of 2016 and did not have a material impact on our consolidated financial statements.

ASU 2015-16, *Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments* simplifies the accounting for adjustments made to provisional amounts recognized in a business combination, the amendments eliminate the requirement to retrospectively account for those adjustments. The amendments require that an acquirer recognizes adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The amendments require that the acquirer records, in the same period's financial statements, the effect on earnings of changes in depreciation, amortization, or other income effects, if any, as a result of the change to the provisional amounts, calculated as if the accounting had been completed at the acquisition date. The amendments became effective for our financial statements beginning in the first quarter of 2016 and did not have a material impact on our consolidated financial statements.

ASU 2015-17, *Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes*, changes how deferred taxes are classified on organizations' balance sheets. The ASU eliminates the requirement for organizations to present deferred tax liabilities and assets as current and noncurrent in a classified balance sheet. Instead, organizations will be required to classify all deferred tax assets and liabilities as noncurrent. We elected to adopt the amendments in the first quarter of 2016 prospectively in advance of the timeline in which we were required to adopt the amendments and accordingly the prior period has not been retrospectively adjusted. The adoption did not have a material impact on our consolidated financial statements.

New Accounting Standards Not Yet Adopted

The following new FASB Accounting Standards Updates, which are not yet adopted, have been grouped by their required effective dates:

First Quarter of 2017

ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory* requires in scope inventory, including inventory measured using first-in, first out (FIFO) or average cost, to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. ASU 2015-11 became effective for us beginning January 1, 2017 and did not have a material impact on our consolidated financial statements.

ASU 2016-07, *Investments - Equity Method and Joint Ventures (Topic 323): Simplifying the Transition to the Equity Method of Accounting* eliminates the requirement to retroactively adopt the equity method of accounting when an investment qualifies for use of the equity method as a result of an increase in the level of ownership or degree of influence. The new guidance became effective for us beginning on January 1, 2017 with no impact on our consolidated financial statements.

ASU 2016-09, *Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* is intended to simplify several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The new guidance became effective for us beginning January 1, 2017. The impact of the adoption of ASU 2016-09 is limited to the recording of any windfall or shortfall benefit directly to the tax provision and the reclassification of certain items in our statement of cash flows, which we intend to adopt prospectively. We will continue estimating stock-based compensation award forfeitures in determining the amount of compensation cost to be recognized each period. We expect an increase to our cash flows from operating activities and a decrease to cash flows from financing activities. Following adoption, we expect volatility in our effective tax rate as any windfall or shortfall tax benefits related to our share-based compensation will be recorded directly into our results of operations.

First Quarter of 2018

ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* affects any entity that either enters into contracts with customers to transfer goods or services or enters into contracts for the transfer of nonfinancial assets unless those contracts are within the scope of other standards (e.g., insurance contracts or lease contracts). In August 2015, the FASB issued Accounting Standards Update No. 2015-14 (ASU 2015-14), *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date* which defers the effective date of ASU 2014-09 to interim and annual reporting periods beginning after December 15, 2017. The FASB has continued to issue accounting standards updates to clarify and provide implementation guidance related

to *Revenue from Contracts with Customers*, including ASU 2016-08 *Revenue from Contract with Customers: Principal versus Agent Considerations*, ASU 2016-10 *Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing*, and ASU 2016-12 *Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients*. An entity should apply the amendments either retrospectively to each prior reporting period presented and the entity may elect certain practical expedients (the full retrospective method of adoption); or, retrospectively with the cumulative effect of initially applying this ASU recognized at the date of initial application (the modified retrospective method of adoption). We have not experienced significant issues in our implementation process and based on the analysis to date, we currently do not expect the adoption to have a material impact on our existing revenue accounting policies or on the recognition of revenue from product sales. However, we continue to evaluate the impact the guidance may have in connection with collaboration and license agreements and other revenue sources. We anticipate adopting this standard on its effective date, January 1, 2018. We have not yet determined the method of adoption, but assuming the impact is not material, we expect to adopt the new standard using the modified retrospective method with an adjustment to beginning retained earnings for the cumulative effect of the change.

ASU 2016-01, *Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* will impact certain aspects of recognition, measurement, presentation and disclosure of financial instruments. The new guidance makes targeted improvements to existing U.S. GAAP by:

- requiring equity investments (except those accounted for under the equity method of accounting, or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income;
- requiring public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes;
- requiring separate presentation of financial assets and financial liabilities by measurement category and form of financial asset (i.e., securities or loans and receivables) on the balance sheet or the accompanying notes to the financial statements;
- eliminating the requirement to disclose the fair value of financial instruments measured at amortized cost for organizations that are not public business entities;
- eliminating the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; and
- requiring a reporting organization to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk (also referred to as “own credit”) when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments.

The amendments will become effective for our financial statements beginning in the first quarter of 2018. The implementation of the amendments is expected to increase the volatility of net income; however the extent of any volatility will be dependent upon the significance of the equity investments at the time of adoption. As of December 31, 2016, we had a net unrealized \$0.2 million loss, net of tax, from equity investments recorded in equity. Following the adoption of this standard, such gains or losses will be recognized in net income.

ASU No. 2016-15, *Statement of Cash Flows (Topic 320): Classification of Certain Cash Receipts and Cash Payments* (a consensus of the FASB Emerging Issues Task Force), addresses eight classification issues related to the statement of cash flows:

- debt prepayment or debt extinguishment costs;
- settlement of zero-coupon bonds;
- contingent consideration payments made after a business combination;
- proceeds from the settlement of insurance claims;
- proceeds from the settlement of corporate-owned life insurance policies, including bank-owned life insurance policies;
- distributions received from equity method investees;
- beneficial interests in securitization transactions; and
- separately identifiable cash flows and application of the predominance principle.

ASU 2016-15 will become effective for us for annual and interim periods in fiscal years beginning after December 15, 2017. Early adoption is permitted, including adoption in an interim period. We will be required to apply this ASU using a retrospective transition method to each period presented other than for issues where application would be impracticable in which case we will be permitted to apply the amendments for those issues prospectively as of the earliest date practicable. The new guidance will become effective for us on January 1, 2018. We are currently evaluating the potential impact of ASU 2016-15 on our consolidated financial statements.

ASU 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*, aims to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. This amendment requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The amendments in this update should be applied on a modified retrospective basis through a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. We are currently evaluating the impact the adoption of this new standard will have on our financial position and results of operations.

ASU 2016-18, *Statement of Cash Flows (Topic 320): Restricted Cash*, requires entities to show the changes in the total of cash, cash equivalents, restricted cash and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. The amendments in this update should be applied using a retrospective transition method to each period presented. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those fiscal years with early adoption permitted, including adoption in an interim period. We are currently evaluating the impact the adoption of this new standard will have on our financial position and results of operations.

ASU 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*, clarifies and provides a more robust framework to use in determining when a set of assets and activities is a business. The amendments in this update should be applied prospectively on or after the effective date. This update is effective for annual periods beginning after December 15, 2017, and interim periods within those periods. Early adoption is permitted for acquisition or deconsolidation transactions occurring before the issuance date or effective date and only when the transactions have not been reported in issued or made available for issuance financial statements. We are currently evaluating the impact the adoption of this new standard will have on our financial position and results of operations.

First Quarter of 2019

ASU 2016-02, *Leases (Topic 842)* aims to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. ASU 2016-02 will become effective for us beginning in the first quarter of 2019 and requires modified retrospective application for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. We do not plan to early adopt this standard and we anticipate that the adoption of this standard will require changes to our systems and processes. We expect this standard to increase total assets and total liabilities, however, we are currently evaluating the potential size of the impact that ASU 2016-02 may have on our consolidated financial statements.

First Quarter of 2020

ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, provides financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. To achieve this objective, the amendments in ASU 2016-13 replace the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. The new guidance will become effective for us beginning on January 1, 2020. We are currently evaluating the potential impact ASU 2016-13 may have on our consolidated financial statements.

ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*, removes Step 2 of the goodwill impairment test. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. ASU 2017-04 is effective for us for annual periods beginning January 1, 2020 and early adoption is permitted. The new guidance is required to be applied on a prospective basis. We are currently evaluating the impact the adoption of this new standard will have on our financial position and results of operations.

3. Summary of Significant Accounting Policies and Critical Accounting Estimates

Principles of Consolidation

The consolidated financial statements include the accounts of QIAGEN N.V. and its wholly-owned subsidiaries. All significant intercompany accounts and transactions have been eliminated. Investments in either common stock or in-substance common stock of companies where we exercise significant influence over the operations but do not have control, and where we are not the primary beneficiary, are accounted for using the equity method. All other investments are accounted for under the cost method. When there is a portion of equity in an acquired subsidiary not attributable, directly or indirectly, to the Company, we record the fair value of the noncontrolling interests at the acquisition date and classify the amounts attributable to noncontrolling interests separately in equity in the consolidated financial statements. Any subsequent changes in the Company's ownership interest while the Company retains its controlling financial interest in its subsidiary are accounted for as equity transactions.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and disclosure of contingencies at the date of the financial statements as well as the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Concentrations of Risk

We buy materials for products from many suppliers, and are not dependent on any one supplier or group of suppliers for the business as a whole. However, key components of certain products, including certain instrumentation components and chemicals, are available only from a single source. If supplies from these vendors were delayed or interrupted for any reason, we may not be able to obtain these materials timely or in sufficient quantities in order to produce certain products and sales levels could be negatively affected. Additionally, our customers include researchers at pharmaceutical and biotechnology companies, academic institutions, and government and private laboratories. Fluctuations in the research and development budgets of these researchers and their organizations for applications in which our products are used could have a significant effect on the demand for our products.

The financial instruments used in managing our foreign currency, equity and interest rate exposures have an element of risk in that the counterparties may be unable to meet the terms of the agreements. We attempt to minimize this risk by limiting the counterparties to a diverse group of highly-rated international financial institutions. The carrying values of our financial instruments incorporate the non-performance risk by using market pricing for credit risk. However, we have no reason to believe that any counterparties will default on their obligations and therefore do not expect to record any losses as a result of counterparty default. In order to minimize our exposure with any single counterparty, we have entered into master agreements which allow us to manage the exposure with the respective counterparty on a net basis.

Other financial instruments that potentially subject us to concentrations of credit risk are cash and cash equivalents, short-term investments, and accounts receivable. We attempt to minimize the risks related to cash and cash equivalents and short-term investments by dealing with highly-rated financial institutions and investing in a broad and diverse range of financial instruments. We have established guidelines related to credit quality and maturities of investments intended to maintain safety and liquidity. Concentration of credit risk with respect to accounts receivable is limited due to a large and diverse customer base, which is dispersed over different geographic areas. Allowances are maintained for potential credit losses and such losses have historically been within expected ranges.

Foreign Currency Translation

Our reporting currency is the U.S. dollar and our subsidiaries' functional currencies are generally the local currency of the respective countries in which they are headquartered. All amounts in the financial statements of entities whose functional currency is not the U.S. dollar are translated into U.S. dollar equivalents at exchange rates as follows: (1) assets and liabilities at period-end rates, (2) income statement accounts at average exchange rates for the period, and (3) components of equity at historical rates. Translation gains or losses are recorded in equity, and transaction gains and losses are reflected in net income as a component of other expense, net. Realized gains or losses on the value of derivative contracts entered into to hedge the exchange rate exposure of receivables and payables are also included in net income as a component of other expense, net. The net (loss) gain on foreign currency transactions in 2016 was less than \$0.1 million and in 2015 and 2014 was \$(0.5) million, and \$1.9 million, respectively, and is included in other expense, net.

The exchange rates of key currencies were as follows:

(US\$ equivalent for one)	Closing rate at December 31,		Annual average rate		
	2016	2015	2016	2015	2014
Euro (EUR)	1.0541	1.0887	1.1068	1.1100	1.3287
Pound Sterling (GBP)	1.2312	1.4833	1.3560	1.5286	1.6474
Swiss Franc (CHF)	0.9816	1.0048	1.0153	1.0406	1.0938
Australian Dollar (AUD)	0.7222	0.7308	0.7439	0.7522	0.9025
Canadian Dollar (CAD)	0.7430	0.7202	0.7552	0.7836	0.9059
Japanese Yen (JPY)	0.0085	0.0083	0.0092	0.0083	0.0095
Chinese Yuan (CNY)	0.1440	0.1542	0.1506	0.1592	0.1623

Segment Information

We determined that we operate as one operating segment in accordance with the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 280, *Segment Reporting*. Our chief operating decision maker (CODM) makes decisions based on the Company as a whole. In addition, we have a common basis of organization and types of products and services which derive revenues and consistent product margins. Accordingly, we operate and make decisions as one reporting unit.

Revenue Recognition

Our revenues are reported net of sales and value added taxes, discounts and sales allowances, and are derived primarily from the sale of consumable and instrumentation products, and to a much lesser extent, from the sale of services, intellectual property and technology. We recognize revenue when four basic criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured.

Consumable and Related Products: In the last three years, revenue from consumable product sales has accounted for approximately 79%-80% of our net sales and is generally recognized upon transfer of title consistent with the shipping terms. We maintain a small amount, on average less than \$2.0 million in total, of consignment inventory at certain customer locations. Revenues for the consumable products which are consigned in this manner are recognized upon consumption. We generally allow returns of consumable products if the product is returned in a timely manner and in good condition. Allowances for returns are provided for based upon the historical pattern of returns and management's evaluation of specific factors that impact the risk of returns.

Revenues from related products include software-as-a-service (SaaS), license fees, intellectual property and patent sales, royalties and milestone payments and over the last three years has accounted for approximately 7%-8% of our net sales. Revenue from SaaS arrangements has increased following our 2013 acquisition of Ingenuity, and is recognized ratably over the duration of the agreement unless the terms of the agreement indicate that revenue should be recognized in a different pattern, for example based on usage. License fees from research collaborations include payments for technology transfer and access rights. Non-refundable, up-front payments received in connection with collaborative research and development agreements are generally deferred and recognized on a straight-line basis over the contract period during which there is any continuing obligation. Revenue from intellectual property and patent sales is recognized when earned, either at the time of sale, or over the contract period when licensed. Payments for milestones, generally based on the achievement of substantive and at-risk performance criteria, are recognized in full at such time as the specified milestone has been achieved according to the terms of the agreement. Royalties from licensees are based on reported sales of licensed products and revenues are calculated based on contract terms when reported sales are reliably measurable, fees are fixed or determinable and collectability is reasonably assured.

Instrumentation: Revenue from instrumentation includes the instrumentation equipment, installation, training and other instrumentation services, such as extended warranty services or product maintenance contracts and over the last three years has accounted for approximately 12%-13% of net sales. Revenue from instrumentation equipment is recognized when title passes to the customer, upon either shipment or written customer acceptance after satisfying any installation and training requirements.

We offer our customers access to our instrumentation via reagent rental agreements which place instrumentation with customers without requiring them to purchase the equipment. Instead, we recover the cost of providing the instrumentation in the amount charged for consumable products. The instruments placed with customers under a reagent rental agreement are depreciated and charged to cost of sales on a straight-line basis over the estimated life of the instrument, typically 3 to 5 years. The costs to maintain these instruments in the field are charged to cost of sales as incurred. Revenue from these reagent rental agreements is allocated to the elements within the arrangement (the lease, the sale of consumables and/or services) in accordance with ASC 605-25, *Revenue Recognition—Multiple-Element Arrangements* and recognized for each unit of accounting as appropriate.

We have contracts with multiple elements which include instrumentation equipment, either leased under a reagent rental agreement or sold directly, together with other elements such as installation, training, extended warranty services or product maintenance contracts or consumable products. These contracts are accounted for under ASC 605-25, *Revenue Recognition—Multiple-Element Arrangements*. Multiple-element arrangements are assessed to determine whether there is more than one unit of accounting. In order for a deliverable to qualify as a separate unit of accounting, both of the following criteria must be met:

- The delivered items have value to the client on a stand-alone basis;
- If the arrangement includes a general right of return relative to the delivered item, delivery or performance of the undelivered item or items is considered probable and substantially in the control of the Company.

Arrangement consideration is allocated at the inception of the arrangement to all deliverables on the basis of their relative selling price. When applying the relative selling price method, the selling price for each deliverable is determined using (a) vendor-specific objective evidence (VSOE) of selling price, if it exists; or otherwise (b) third-party evidence of selling price. If neither VSOE nor third-party evidence of selling price exists for a deliverable, then the best estimated selling price for the deliverable is used. The arrangement consideration is allocated to the separate units of accounting based on each unit's relative fair value. If these criteria are not met, deliverables included in an arrangement are accounted for as a single unit of accounting and revenues and costs are deferred until the period or periods in which the final deliverable is provided.

We have evaluated the deliverables in our multiple-element arrangements and concluded that they are separate units of accounting because the delivered item or items have value to the customer on a standalone basis and for an arrangement that includes a general right of return relative to the delivered item(s), delivery or performance of the undelivered item(s) is considered probable and substantially in our control. Revenues from installation and training are recognized as services are completed, based on VSOE, which is determined by reference to the price customers pay when the services are sold separately. Revenues from extended warranty services or product maintenance contracts are recognized on a straight-line basis over the term of the contract, typically one year. VSOE of fair value of extended warranty services or product maintenance is determined based on the price charged for the maintenance and support when sold separately. Revenues from the instrumentation equipment and consumable products are recognized when the products are delivered and there are no further performance obligations. VSOE of fair value of instrumentation equipment and consumable products is determined based on the price charged for the instrument and consumables when sold separately. Certain of our reagent rental arrangements include termination provisions for breach of contract. However, these termination provisions would not impact recognized revenues. Our other arrangements do not include any provisions for cancellation or refunds.

Warranty

We provide warranties on our products against defects in materials and workmanship for a period of one year. A provision for estimated future warranty costs is recorded in cost of sales at the time product revenue is recognized. Product warranty obligations are included in accrued and other current liabilities in the accompanying consolidated balance sheets. The changes in the carrying amount of warranty obligations are as follows:

(in thousands)	Total
BALANCE AT DECEMBER 31, 2014	\$ 3,279
Provision charged to cost of sales	2,202
Usage	(2,569)
Adjustments to previously provided warranties, net	(91)
Currency translation	(184)
BALANCE AT DECEMBER 31, 2015	\$ 2,637
Provision charged to cost of sales	3,562
Usage	(2,936)
Adjustments to previously provided warranties, net	(424)
Currency translation	(60)
BALANCE AT DECEMBER 31, 2016	\$ 2,779

Research and Development

Research and product development costs are expensed as incurred. Research and development expenses consist primarily of salaries and related expenses, facility costs and amounts paid to contract research organizations, and laboratories for the provision of services and materials as well as costs for internal use or clinical trials.

Government Grants

We recognize government grants when there is reasonable assurance that all conditions will be complied with and the grant will be received. Our government grants generally represent subsidies for specified activities and are therefore recognized when earned as a reduction of the expenses recorded for the activity that the grants are intended to compensate. Thus, when the grant relates to research and development expense, the grant is recognized over the same period that the related costs are incurred. Otherwise, amounts received under government grants are recorded as liabilities in the balance sheet. When the grant relates to an asset, the nominal amount of the grant is deducted from the carrying amount of the asset and recognized over the same period that the related asset is depreciated.

Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of an asset that takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets (qualifying asset) when such borrowing costs are significant. All other borrowing costs are expensed in the period they occur.

Shipping and Handling Income and Costs

Shipping and handling costs charged to customers are recorded as revenue in the period that the related product sale revenue is recorded. Associated costs of shipping and handling are included in sales and marketing expenses. For the years ended December 31, 2016, 2015 and 2014, shipping and handling costs totaled \$26.5 million, \$26.2 million and \$26.8 million, respectively.

Advertising Costs

The costs of advertising are expensed as incurred and are included as a component of sales and marketing expense. Advertising costs for the years ended December 31, 2016, 2015 and 2014 were \$8.4 million, \$7.2 million and \$7.0 million, respectively.

General and Administrative, Integration and Other

General and administrative expenses primarily represent the costs required to support administrative infrastructure. In addition, we incur indirect acquisition and business integration costs in connection with business combinations. These costs represent incremental costs that we believe would not have been incurred absent the business combinations. Major components of these costs include payroll and related costs for employees remaining with the Company on a transitional basis; public relations, advertising and media costs for re-branding of the combined organization; and, consulting and related fees incurred to integrate or restructure the acquired operations.

Restructuring

Restructuring costs include personnel costs (principally termination benefits), facility closure and contract termination costs. Termination benefits are accounted for in accordance with FASB ASC Topic 712, *Compensation - Nonretirement Postemployment Benefits*, and are recorded when it is probable that employees will be entitled to benefits and the amounts can be reasonably estimated. Estimates of termination benefits are based on the frequency of past termination benefits, the similarity of benefits under the current plan and prior plans, and the existence of statutory required minimum benefits. Facility closure, some termination benefits and other costs are accounted for in accordance with FASB ASC Topic 420, *Exit or Disposal Cost Obligations* and are recorded when the liability is incurred. The specific restructuring measures and associated estimated costs are based on management's best business judgment under the existing circumstances at the time the estimates are made. If future events require changes to these estimates, such adjustments will be reflected in the period of the revised estimate.

Income Taxes

We account for income taxes under the liability method. Under this method, total income tax expense is the amount of income taxes expected to be payable for the current year plus the change from the beginning of the year for deferred income tax assets and liabilities established for the expected further tax consequences resulting from differences in the financial reporting and tax basis of assets and liabilities. Deferred tax assets and/or liabilities are determined by multiplying the differences between the financial reporting and tax reporting bases for assets and liabilities by the enacted tax rates expected to be in effect when such differences are recovered or settled. Deferred tax assets are reduced by a valuation allowance to the amount more likely than not to be realized. The effect on deferred taxes of a change in tax rates is recognized in income in the period that includes the enactment date.

Tax benefits are initially recognized in the financial statements when it is more likely than not that the position will be sustained upon examination by the tax authorities. Such tax positions are initially and subsequently measured as the largest amount of tax benefit that is greater than 50 percent likely of being realized upon settlement with the taxing authority using the cumulative probability method, assuming the tax authority has full knowledge of the position and all relevant facts. Our policy is to recognize interest accrued related to unrecognized tax benefits in interest expense and penalties within the income tax expense.

Derivative Instruments

We enter into derivative financial instrument contracts to minimize the variability of cash flows or income statement impact associated with the anticipated transactions being hedged or to hedge fluctuating interest rates. As changes in foreign currency or interest rate impact the value of anticipated transactions, the fair value of the forward or swap contracts also changes, offsetting foreign currency or interest rate fluctuations. Derivative instruments are recorded on the balance sheet at fair value. Changes in fair value of derivatives are recorded in current earnings or other comprehensive income, depending on whether a derivative is designated as part of a hedge transaction.

Share-Based Payments

Compensation cost for all share-based payments is recorded based on the grant date fair value, less an estimate for pre-vesting forfeitures, recognized in expense over the service period. As discussed in Note 20 *Share-Based Compensation*, in 2016 we made a change in accounting principle to move from a straight-line attribution method for expense recognition to an accelerated attribution method.

Stock Options: We utilize the Black-Scholes-Merton valuation model for estimating the fair value of our stock options granted. Option valuation models, including Black-Scholes-Merton, require the input of highly subjective assumptions, and changes in the assumptions used can materially affect the grant date fair value of an award. These assumptions include the risk-free rate of interest, expected dividend yield, expected volatility, expected life of the award and forfeiture rate. We have not granted stock options since 2013.

Restricted Stock Units and Performance Stock Units: Restricted stock units and performance stock units represent rights to receive Common Shares at a future date. The fair market value of restricted and performance stock units is determined based on the number of stock units granted and the fair market value of our shares on the grant date. The fair market value at the time of the grant, less an estimate for pre-vesting forfeitures, is recognized in expense over the vesting period. At each reporting period, the estimated performance achievement of the performance stock units is assessed and any change in the estimated achievement is recorded on a cumulative basis in the period of adjustment.

Forfeiture Rate—This is the estimated percentage of grants that are expected to be forfeited or cancelled on an annual basis before becoming fully vested. We estimated the forfeiture rate based on historical forfeiture experience.

Cash and Cash Equivalents

Cash and cash equivalents consist of cash on deposit in banks and other cash invested temporarily in various instruments that are short-term and highly liquid, and having an original maturity of less than 90 days at the date of purchase.

(in thousands)	2016	2015
Cash at bank and on hand	\$ 137,615	\$ 217,644
Short-term bank deposits	301,565	72,367
Cash and Cash Equivalents	<u>\$ 439,180</u>	<u>\$ 290,011</u>

Short-Term Investments

Short-term investments are classified as “available for sale” and stated at fair value in the accompanying balance sheet. Interest income is accrued when earned and changes in fair market values are reflected as unrealized gains and losses, calculated on the specific identification method, as a component of accumulated other comprehensive income (loss) in equity. The amortization of premiums and accretion of discounts to maturity arising from acquisition is included in interest income. A decline in fair value that is judged to be other-than-temporary is accounted for as a realized loss and the write-down is included in the consolidated statements of income. Realized gains and losses, determined on a specific identification basis, on the sale of short-term investments are included in income.

Fair Value of Financial Instruments

The carrying amount of cash and cash equivalents, notes receivable, accounts receivable, accounts payable and accrued liabilities approximate their fair values because of the short maturities of those instruments. The carrying value of our variable rate debt and capital leases approximates their fair values because of the short maturities and/or interest rates which are comparable to those available to us on similar terms. The fair values of the Cash Convertible Notes are based on an estimation using available over-the-counter market information. The fair values of the Private Placement Senior Notes further described in Note 15 were estimated using the changes in the U.S. Treasury rates.

Accounts Receivable

Our accounts receivable are unsecured and we are at risk to the extent such amounts become uncollectible. We continually monitor accounts receivable balances, and provide for an allowance for doubtful accounts at the time collection becomes questionable based on payment history or age of the receivable. Amounts determined to be uncollectible are written off against the reserve. For the years ended December 31, 2016, 2015 and 2014, write-offs of accounts receivable totaled \$1.6 million,

\$2.0 million and \$2.3 million, respectively, while provisions for doubtful accounts which were charged to expense totaled \$2.1 million, \$2.1 million and \$1.4 million, respectively. For all years presented, no single customer represented more than ten percent of accounts receivable or consolidated net sales.

Inventories

Inventories are stated at the lower of cost, determined on a first-in, first-out basis, or market and include material, capitalized labor and overhead costs. Inventories consisted of the following as of December 31, 2016 and 2015:

(in thousands)	2016	2015
Raw materials	\$ 29,402	\$ 27,051
Work in process	28,123	21,066
Finished goods	79,027	88,469
Total inventories, net	<u>\$ 136,552</u>	<u>\$ 136,586</u>

Property, Plant and Equipment

Property, plant and equipment, including equipment acquired under capital lease obligations, are stated at cost less accumulated amortization. Capitalized internal-use software costs include only those direct costs associated with the actual development or acquisition of computer software for internal use, including costs associated with the design, coding, installation and testing of the system. Costs associated with preliminary development, such as the evaluation and selection of alternatives, as well as training, maintenance and support are expensed as incurred. Costs for software to be sold, leased or otherwise marketed that are related to the conceptual formulation and design are expensed as incurred. Costs incurred to produce the product after technological feasibility is established are capitalized and amortized in accordance with the accounting standards for the costs of software to be sold, leased, or otherwise marketed. All other depreciation is computed using the straight-line method over the estimated useful lives of the assets (3 to 40 years). Amortization of leasehold improvements is computed on a straight-line basis over the lesser of the remaining life of the lease or the estimated useful life of the improvement asset. We have a policy of capitalizing expenditures that materially increase assets' useful lives and charging ordinary maintenance and repairs to operations as incurred. When property or equipment is disposed of, the cost and related accumulated depreciation and amortization are removed from the accounts and any gain or loss is included in earnings.

Acquired Intangibles and Goodwill

Acquired intangibles with alternative future uses are carried at cost less accumulated amortization and consist of licenses to technology held by third parties and other acquired intangible assets. Amortization is computed over the estimated useful life of the underlying patents, which has historically ranged from one to twenty years. Purchased intangible assets acquired in business combinations, other than goodwill, are amortized over their estimated useful lives unless these lives are determined to be indefinite. Intangibles are assessed for recoverability considering the contract life and the period of time over which the intangible will contribute to future cash flow. The unamortized cost of intangible assets, where cash flows are independent and identifiable from other assets, is evaluated periodically and adjusted, if necessary, if events and circumstances indicate that a decline in value below the carrying amount has occurred. In 2016, we recorded intangible asset impairments of \$21.4 million related to the restructuring as discussed in Note 6. For the years ended December 31, 2015 and 2014, we recorded intangible asset impairments of \$0.2 million and \$8.7 million, respectively. Intangible asset impairments recorded during the year ended December 31, 2014 are further discussed in Note 6 *Restructuring*.

Amortization expense related to developed technology and patent and license rights which have been acquired in a business combination is included in cost of sales. Amortization of trademarks, customer base and non-compete agreements which have been acquired in a business combination is recorded in operating expense under the caption 'acquisition-related intangible amortization'. Amortization expenses of intangible assets not acquired in a business combination are recorded within either the cost of sales, research and development or sales and marketing line items based on the use of the asset.

Goodwill represents the difference between the purchase price and the estimated fair value of the net assets acquired arising from business combinations. Goodwill is subject to impairment tests annually or earlier if indicators of potential impairment exist, using a fair-value-based approach. We have elected to perform our annual test for indications of impairment as of October 1st of each year. Following the annual impairment tests for the years ended December 31, 2016, 2015 and 2014, goodwill has not been impaired. As discussed in Note 6 *Restructuring*, in 2016 we recorded a \$2.6 million disposal of goodwill.

Investments

We have investments in non-marketable securities issued by privately held companies. These investments are included in other long-term assets in the accompanying consolidated balance sheets and are accounted for using the equity or cost method of accounting.

Investments are evaluated periodically, or when impairment indicators are noted, to determine if declines in value are other-than-temporary. In making that determination, we consider all available evidence relating to the realizable value of a security. This evidence includes, but is not limited to, the following:

- adverse financial conditions of a specific issuer, segment, industry, region or other variables;
- the length of time and the extent to which the fair value has been less than cost; and
- the financial condition and near-term prospects of the issuer.

We consider whether the fair values of any of our cost or equity method investments have declined below their carrying value whenever adverse events or changes in circumstances indicate that recorded values may not be recoverable. If any such decline is considered to be other than temporary (based on various factors, including historical financial results, product development activities and the overall health of the affiliate's industry), then a write-down of the investment would be recorded in operating expense to its estimated fair value. In 2016, we recorded an impairment to an equity method investment of \$8.3 million, in other expense, net. For the year ended December 31, 2015 we recorded total impairments to a cost method investment of \$2.2 million, in other expense, net. For the year ended December 31, 2014, we recorded total impairments to cost method investments of \$6.0 million, of which \$4.8 million was recorded in other expense, net and \$1.2 million was recorded in research and development expense.

Impairment of Long-Lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset or a group of assets may not be recoverable. We consider, amongst other indicators, a history of operating losses or a change in expected sales levels to be indicators of potential impairment. Assets are grouped and evaluated for impairment at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. If an asset is determined to be impaired, the loss is measured as the amount by which the carrying amount of the asset exceeds fair value which is determined by applicable market prices, when available. When market prices are not available, we generally measure fair value by discounting projected future cash flows of the asset. Considerable judgment is necessary to estimate discounted future cash flows. Accordingly, actual results could differ from such estimates. During the year ended December 31, 2016, in connection with the restructuring discussed in Note 6, we recorded asset impairment charges of \$10.9 million, of which \$9.2 million is recorded in research and development expense, \$1.5 million is recorded in general and administrative, integration and other expense, \$0.1 million is recorded in cost of sales and \$0.1 million is recorded in sales and marketing expense. In 2015, we recorded asset impairment charges of \$3.1 million in general and administrative, integration and other expenses in the accompanying consolidated statements of income related to the abandonment of certain software projects following the acquisition of MO BIO. During the year ended December 31, 2014 in connection with our internal and acquisition related restructuring, we recorded asset impairment charges of \$19.6 million, of which \$15.5 million is recorded in cost of sales, \$2.4 million is recorded in sales and marketing expense, and \$1.7 million in general and administrative, integration and other expenses in the accompanying consolidated statements of income.

4. Segment Information

Considering the acquisitions made during 2016, we determined that we still operate as one business segment in accordance with FASB ASC Topic 280, *Segment Reporting*. As a result of our continued restructuring and streamlining of the growing organization, our chief operating decision maker (CODM) continues to make decisions with regards to business operations and resource allocation based on evaluations of QIAGEN as a whole. Accordingly, we operate as one business segment. Summarized product category and geographic information is shown in the tables below.

Product Category Information

Net sales for the product categories are attributed based on those revenues related to sample and assay products and similarly related revenues including bioinformatics solutions, and revenues derived from instrumentation sales.

(in thousands)	2016	2015	2014
Net Sales			
Consumables and related revenues	\$ 1,166,131	\$ 1,114,580	\$ 1,172,728
Instrumentation	171,860	166,406	172,049
Total	<u>\$ 1,337,991</u>	<u>\$ 1,280,986</u>	<u>\$ 1,344,777</u>

Geographical Information

Net sales are attributed to countries based on the location of the customer. QIAGEN operates manufacturing facilities in Germany, China, the United Kingdom, and the United States that supply products to customers as well as QIAGEN subsidiaries

in other countries. The sales from these manufacturing operations to other countries are included in the Net Sales of the countries in which the manufacturing locations are based. The intersegment portions of such net sales are excluded to derive consolidated net sales. No single customer represents more than ten percent of consolidated net sales. Our country of domicile is the Netherlands, which reported net sales of \$12.4 million, \$11.3 million and \$13.7 million for the years ended 2016, 2015 and 2014, respectively, and these amounts are included in the line item Europe, Middle East and Africa as shown in the table below.

(in thousands)	2016	2015	2014
Net Sales			
Americas:			
United States	\$ 555,676	\$ 525,532	\$ 543,877
Other Americas	71,797	79,578	75,974
Total Americas	<u>627,473</u>	<u>605,110</u>	<u>619,851</u>
Europe, Middle East and Africa	428,055	409,955	451,092
Asia Pacific and Rest of World	282,463	265,921	273,834
Total	<u>\$ 1,337,991</u>	<u>\$ 1,280,986</u>	<u>\$ 1,344,777</u>

Long-lived assets include property, plant and equipment. The Netherlands, which is included in the balances for Europe, reported long-lived assets of \$1.4 million and \$0.3 million as of December 31, 2016 and 2015, respectively.

(in thousands)	2016	2015
Long-lived assets		
Americas:		
United States	\$ 145,813	\$ 148,748
Other Americas	4,544	2,691
Total Americas	<u>150,357</u>	<u>151,439</u>
Germany	237,190	243,120
Other Europe	37,057	35,573
Asia Pacific and Rest of World	12,051	12,812
Total	<u>\$ 436,655</u>	<u>\$ 442,944</u>

5. Acquisitions

Acquisitions have been accounted for as business combinations, and the acquired companies' results have been included in the accompanying consolidated statements of income from their respective dates of acquisition. Our acquisitions have historically been made at prices above the fair value of the acquired net assets, resulting in goodwill, due to expectations of synergies of combining the businesses. These synergies include use of our existing infrastructure, such as sales force, shared service centers, distribution channels and customer relations, to expand sales of the acquired businesses' products; use of the infrastructure of the acquired businesses to cost-effectively expand sales of our products; and elimination of duplicative facilities, functions and staffing.

2016 Acquisitions

During the second quarter of 2016, we acquired a majority shareholding in Exiqon A/S (Exiqon), a publicly traded Danish company headquartered in Vedbaek, Denmark, which is a leading provider of RNA analysis solutions with a proprietary Locked Nucleic Acid (LNA) technology. The acquisition expands our leadership position in Sample to Insight solutions for RNA analysis. On June 28, 2016, we paid DKK 627.4 million (\$95.2 million) for approximately 94.52% of the outstanding Exiqon common shares. On the acquisition date, the fair value of the remaining shares was \$5.5 million. The fair value of this noncontrolling share was based on reference to quoted market values of Exiqon stock. Since the acquisition date, we have acquired the remaining Exiqon shares for \$5.5 million in cash, which is included in other financing activities in the accompanying consolidated statements of cash flows, and as of December 31, 2016 we held 100% of Exiqon's shares. For the year ended December 31, 2016, acquisition-related costs of \$6.3 million are included in general and administrative, integration and other in the accompanying consolidated statements of income.

The preliminary purchase price allocation as of December 31, 2016 did not differ from the preliminary purchase price allocation as of June 30, 2016 other than a \$9.4 million increase in developed technology, a \$9.2 million increase in deferred tax asset on tax loss carry forwards, a \$2.8 million decrease in customer relationships, a \$1.2 million increase of long-term deferred tax liability, a \$0.4 million increase in prepaid expenses and other current assets and an additional \$0.3 million increase of other opening balance sheet liabilities. The corresponding impact for these adjustments was a decrease to goodwill of \$14.7 million.

The allocation of the purchase price is preliminary and is not yet finalized. The preliminary allocation of the purchase price is based upon preliminary estimates which used information that was available to management at the time the financial statements were prepared and these estimates and assumptions are subject to change within the measurement period, up to one year from the acquisition date. Accordingly, the allocation may change. We continue to gather information about the deferred taxes related to the intangible assets acquired as well as the deferred tax asset on tax loss carry forwards.

(in thousands)	Exiqon acquisition
Purchase Price:	
Cash consideration	\$ 95,163
Fair value of remaining shares	5,519
	<u>\$ 100,682</u>
Preliminary Allocation:	
Cash and cash equivalents	\$ 4,824
Accounts receivable	3,581
Inventory	1,553
Prepaid expenses and other current assets	1,853
Accounts payable	(1,289)
Accruals and other current liabilities	(11,587)
Debt assumed	(6,068)
Other long-term liabilities	(197)
Deferred tax asset on tax loss carry forwards	10,016
Fixed and other long-term assets	2,870
Developed technology	18,500
Customer relationships	3,800
Tradenames	1,400
Goodwill	76,807
Deferred tax liability on fair value of identifiable intangible assets acquired	(5,381)
	<u>\$ 100,682</u>

The weighted average amortization period for the intangible assets is 11.1 years. The goodwill acquired is not deductible for tax purposes.

Revenue and earnings in the reporting periods since the acquisition date have not been significant. No pro forma financial information has been provided herein as the acquisition of Exiqon did not have a material impact to net sales, net income or earnings per share on a pro forma basis.

2015 Acquisitions

During 2015, we completed three acquisitions, including the acquisition of MO BIO Laboratories, Inc., a privately-held U.S. company, that is considered a leader in sample technologies for metagenomics and microbiome analysis. Purchase consideration for these acquisitions totaled \$66.9 million in cash, net of cash acquired, and as of December 31, 2016, the purchase price allocations are final. Each of these acquisitions did not have a material impact to net sales, net income or earnings per share and therefore no pro forma information has been provided herein.

2014 Acquisition

In December 2014, we acquired the enzyme solutions business of Enzymatics Inc. (Enzymatics), a U.S. company whose products are used in an estimated 80% of all next-generation sequencing (NGS) workflows. The comprehensive Enzymatics portfolio complements QIAGEN's leading offering of universal NGS products, advancing our strategy to drive the adoption of NGS in clinical healthcare. The cash consideration totaled \$114.2 million. The acquisition of Enzymatics did not have a material business impact to net sales, net income or earnings per share, and therefore no pro forma financial information has been provided herein.

The final purchase price allocation of Enzymatics did not differ from the preliminary estimates other than an increase of \$2.1 million in fair value of contingent consideration, a \$0.4 million increase of long-term deferred tax liability and an additional \$0.1 million increase of other opening balance sheet adjustments. The corresponding impact for these adjustments was an increase to goodwill of \$2.4 million. These changes to arrive at the final purchase price allocation were not material to the consolidated financial statements.

The final purchase price allocation for Enzymatics was as follows:

(in thousands)	Enzymatics acquisition
Purchase Price:	
Cash consideration	\$ 114,224
Fair value of contingent consideration	13,600
	<u>\$ 127,824</u>
Final Allocation:	
Cash and cash equivalents	\$ 1,178
Accounts receivable	2,813
Prepaid expenses and other current assets	1,330
Fixed and other long-term assets	1,414
Accounts payable	(3,090)
Accruals and other current liabilities	(1,940)
Developed technology	28,600
Tradenames	6,600
Customer relationships	22,300
Goodwill	90,177
Deferred tax liability on fair value of identifiable intangible assets acquired	(21,558)
	<u>\$ 127,824</u>

The weighted-average amortization period for the intangible assets is 11.1 years. The goodwill acquired is not deductible for tax purposes.

Certain acquisitions may include contingent consideration which is recorded as part of the purchase consideration based on the acquisition date fair value. Under the purchase agreement, potential contingent cash payments through 2017 total \$17.0 million, of which the fair value of \$13.6 million was recorded as purchase price using a probability-weighted analysis of the future milestones using discount rates between 0.70% and 2.20%. See Note 14, "Fair Value Measurements," for details of the changes in the fair value of the contingent consideration liabilities.

Other 2014 Acquisitions

During 2014, we completed other acquisitions which individually were not significant to the overall consolidated financial statements. The cash paid for these acquisitions, net of cash acquired, totaled \$47.4 million. Each of these acquisitions individually did not have a material impact to net sales, net income or earnings per share and therefore no pro forma information has been provided herein.

Other Acquisition

During 2011, we acquired a majority shareholding in QIAGEN Marseille S.A., formerly Ipsogen S.A. (Marseille), a publicly listed company founded and based in Marseille, France. During 2014, we acquired additional Marseille shares for a total of \$0.3 million and held 90.27% of the Marseille shares as of December 31, 2014. In 2015, QIAGEN Marseille, a fully

consolidated entity, sold all its assets and liabilities, with the exception of its intellectual property portfolio. During 2015, we acquired additional Marseille shares through a tender offer for a total of \$8.0 million and held 97.22% of the QIAGEN Marseille shares as of December 31, 2015. Per the terms of the tender offer, \$2.5 million was aside as of December 31, 2015 in restricted cash for the remaining shares which were acquired in the first quarter of 2016 and as of December 31, 2016 we held 100% of the QIAGEN Marseille shares.

6. Restructuring

2016 Restructuring

During the fourth quarter of 2016, we initiated series of targeted actions to support faster sales momentum and improve efficiency and accountability. The objective with these actions is to ensure that we grow sustainably and consistently in the coming years. Measures include simplifying our geographic presence with site reductions, focusing resources to shared service centers, and streamlining selected organizational structures. We expect to complete the program in 2017 at a total cost of approximately \$90.0 million, of which \$79.1 million was incurred in 2016 and approximately \$10.0 million is expected to be incurred in 2017 primarily related to personnel and facility costs.

The table below shows how the costs related to the restructuring program were recorded.

(in thousands)	Personnel Related	Facility Related	Contract and Other Costs	Asset Impairments & Disposals	Total
Cost of sales	\$ 1,222	\$ 205	\$ 43	\$ 10,490	\$ 11,960
Research and development	4,176	1,798	14	20,370	26,358
Sales and marketing	12,753	4,335	6,797	1,046	24,931
General and administrative, integration and other	1,069	827	1,461	1,547	4,904
Other expense, net	—	—	—	10,946	10,946
Total	<u>\$ 19,220</u>	<u>\$ 7,165</u>	<u>\$ 8,315</u>	<u>\$ 44,399</u>	<u>\$ 79,099</u>

Personnel and related expense includes a \$2.0 million reduction in costs as a result of forfeitures of share-based compensation in connection with terminations. We incurred consulting costs of \$7.5 million, included in Contract and Other Costs, related to third party consulting costs associated with the development of the restructuring plan. Asset Impairments and Disposals include \$21.4 million for intangible asset impairments, \$10.9 million for fixed asset abandonments, and \$1.1 million primarily in connection with the write-off of prepaid contract costs. The total \$10.9 million of expense included in other expense, net in the accompanying consolidated statements of income is composed of \$8.3 million associated with an impairment of an equity method investment and a disposal of goodwill of \$2.6 million.

The following table summarizes the cash components of the restructuring activity.

(in thousands)	Personnel Related	Facility Related	Contract and Other Costs	Total
Costs incurred in 2016	\$ 21,252	\$ 7,165	\$ 8,315	\$ 36,732
Payments	(2,742)	(601)	(2,391)	(5,734)
Facility deferred rent reclassified to restructuring liability	—	1,326	—	1,326
Foreign currency translation adjustment	(30)	(8)	19	(19)
Liability at December 31, 2016	<u>\$ 18,480</u>	<u>\$ 7,882</u>	<u>\$ 5,943</u>	<u>\$ 32,305</u>

At December 31, 2016, \$27.6 million of the liability is included in accrued and other current liabilities and \$4.7 million is included in other long-term liabilities in the accompanying consolidated balance sheet.

2014 Restructuring

During the fourth quarter of 2014, we recorded pretax charges of \$37.1 million in restructuring charges in connection with the acquisition of Enzymatics discussed in Note 5 and from the implementation of headcount reductions and facility consolidations to further streamline operations and various measures as part of a commitment to continuous improvement and related to QIAGEN's strategic focus on its five growth drivers. Of these charges, \$26.4 million is recorded in cost of sales, \$2.4 million is recorded in sales and marketing, and \$8.3 million is recorded in general, administrative, integration and other. The pretax charge consists of \$6.4 million for workforce reductions, \$19.6 million for fixed asset abandonment charges, \$8.7 million for intangible asset abandonment charges in line with strategic initiatives to keep our activities technologically and competitively

current. Additionally, we incurred contract termination and consulting costs of \$2.4 million. No additional costs were incurred in 2015 or 2016 related to this program.

The following table summarizes the components of the 2014 restructuring costs. At December 31, 2016, no further amounts were payable under this restructuring program. At December 31, 2015, a restructuring accrual of \$4.1 million was included in accrued and other current liabilities.

(in thousands)	Personnel Related	Facility Related	Contract and Other Costs	Total
Balance at December 31, 2014	\$ 6,341	\$ 7,627	\$ 652	\$ 14,620
Payments	(4,789)	(4,199)	(418)	(9,406)
Release of excess accrual	(453)	—	(20)	(473)
Foreign currency translation adjustment	(630)	—	—	(630)
Balance at December 31, 2015	\$ 469	\$ 3,428	\$ 214	\$ 4,111
Payments	(143)	(3,428)	(214)	(3,785)
Release of excess accrual	(325)	—	—	(325)
Foreign currency translation adjustment	(1)	—	—	(1)
Balance at December 31, 2016	\$ —	\$ —	\$ —	\$ —

2011 Restructuring

Late in 2011, we began a project to enhance productivity by streamlining the organization and reallocating resources to strategic initiatives. This project eliminated organizational layers and overlapping structures. The last group of initiatives included actions to focus research and development activities on higher-growth areas in all customer classes, concentrate operations at fewer sites, and realign sales and regional marketing teams in the U.S. and Europe to better address customer needs in a more streamlined manner across the continuum from basic research to translational medicine and clinical diagnostics.

The following table summarizes the cash components of the restructuring costs.

(in thousands)	Personnel Related	Facility Related	Contract and Other Costs	Total
Balance at December 31, 2013	\$ 9,782	\$ 313	\$ 511	\$ 10,606
Payments	(8,071)	(313)	(511)	(8,895)
Release of excess accrual	(775)	—	—	(775)
Foreign currency translation adjustment	(210)	—	—	(210)
Balance at December 31, 2014	\$ 726	\$ —	\$ —	\$ 726
Payments	(381)	—	—	(381)
Release of excess accrual	(340)	—	—	(340)
Foreign currency translation adjustment	(5)	—	—	(5)
Balance at December 31, 2015	\$ —	\$ —	\$ —	\$ —

7. Short-Term Investments

At December 31, 2016 and 2015, we had \$89.3 million and \$127.1 million, respectively, of loan receivables and commercial paper due from financial institutions. These loan receivables and commercial paper are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market and are carried at fair market value, which is equal to the cost. At December 31, 2016, these loans consist of \$63.5 million and €24.5 million (\$25.8 million as of December 31, 2016) which mature at various dates through December 2018. All instruments that have an original tenor of more than 12 months include redemption rights on at least a quarterly basis. Interest income is determined using the effective interest rate method. These loans are classified as current assets in the accompanying consolidated balance sheets since we may redeem the loans at our discretion.

At December 31, 2016 and 2015, we also had €3.5 million (\$3.7 million) and €3.4 million (\$3.7 million), respectively in term deposits with final maturities in August 2017. The deposits can be withdrawn at the end of each quarter without penalty and are therefore classified as current assets in the accompanying consolidated balance sheets.

For the year ended December 31, 2016 and 2015, proceeds from sales of short term investments totaled \$533.8 million and \$367.7 million, respectively. During the year ended December 31, 2016, realized gains totaled \$1.4 million. During the years ended December 31, 2015 and 2014, realized losses totaled \$6.0 million and \$3.9 million, respectively.

8. Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets are summarized as follows as of December 31, 2016 and 2015:

(in thousands)	2016	2015
Prepaid expenses	\$ 35,529	\$ 38,986
Value added tax	14,985	15,219
Other receivables	10,899	9,658
Fair value of derivative instruments	5,386	3,758
Amounts held in escrow in connection with acquisitions	—	2,500
Total prepaid expenses and other current assets	<u>\$ 66,799</u>	<u>\$ 70,121</u>

9. Property, Plant and Equipment

Property, plant and equipment, including equipment acquired under capital lease obligations, are summarized as follows as of December 31, 2016 and 2015:

(in thousands)	Estimated useful life (in years)	2016	2015
Land	—	\$ 16,327	\$ 15,452
Buildings and improvements	5-40	301,092	302,068
Machinery and equipment	3-10	257,349	253,556
Computer software	3-7	176,227	125,396
Furniture and office equipment	3-10	89,560	92,281
Construction in progress	—	47,260	63,825
		<u>887,815</u>	<u>852,578</u>
Less: Accumulated depreciation and amortization		(451,160)	(409,634)
Property, plant and equipment, net		<u>\$ 436,655</u>	<u>\$ 442,944</u>

Amortization of assets acquired under capital lease obligations is included within accumulated depreciation and amortization above for the years ended December 31, 2016 and 2015, respectively. For the years ended December 31, 2016, 2015 and 2014 depreciation and amortization expense totaled \$75.1 million, \$59.5 million and \$67.9 million, respectively. For the years ended December 31, 2016, 2015 and 2014 amortization related to computer software to be sold, leased or marketed totaled \$9.3 million, \$5.1 million and \$6.2 million, respectively.

In 2016, we recorded asset impairment charges of \$10.9 million related to the restructuring charge discussed in Note 6. Impairments included \$7.5 million of computer software to be sold, leased or marketed, \$1.7 million in machinery and equipment, \$1.5 million in internal-use software, \$0.1 million in furniture and office equipment and \$0.1 million in buildings and improvements. In 2015, we recorded asset impairment charges of \$3.1 million, of which \$1.0 million related to computer software to be sold, leased or marketed related to the abandonment of certain projects following the acquisition of MO BIO.

Repairs and maintenance expense was \$13.0 million, \$15.4 million and \$15.9 million in 2016, 2015 and 2014, respectively. For the year ended December 31, 2016 and 2015, construction in progress primarily includes amounts related to ongoing software development projects. For the years ended December 31, 2016, 2015 and 2014, interest capitalized in connection with construction projects was not significant.

10. Investments

We have made strategic investments in certain companies that are accounted for using the equity or cost method of accounting. The method of accounting for an investment depends on the level of influence. We monitor changes in circumstances that may

require a reassessment of the level of influence. We periodically review the carrying value of these investments for impairment, considering factors such as the most recent stock transactions and book values from the recent financial statements. The fair value of cost and equity-method investments is estimated when there are identified events or changes in circumstances that may have an impact on the fair value of the investment. Additionally, we have investments in marketable equity securities that have readily determinable fair values that are classified as available-for-sale. These investments are reported at fair value, with unrealized gains and losses recorded in accumulated other comprehensive income (loss) in equity.

Equity Method Investments

A summary of these equity method investments, which are included in other long-term assets in the consolidated balance sheets, is as follows:

(\$ in thousands)	Ownership Percentage	Equity investments as of December 31,		Share of income (loss) for the years ended December 31,		
		2016	2015	2016	2015	2014
PreAnalytiX GmbH	50.00%	\$ 3,519	\$ 10,627	\$ 3,067	\$ 1,878	\$ 3,577
Biotype Innovation GmbH	24.90%	3,339	3,775	(335)	(595)	—
Pyrobett	19.00%	2,444	2,111	333	(600)	(539)
Hombrechtikon Systems Engineering AG	19.00%	1,524	—	—	—	—
QIAGEN (Suzhou) Institute of Translation Research Co., Ltd.	30.00%	—	203	(244)	(107)	(409)
QIAGEN Finance	100.00%	—	—	—	85	147
QBM Cell Science	19.50%	—	—	—	—	(2)
Dx Assays Pte Ltd	33.30%	—	—	—	—	710
		<u>\$ 10,826</u>	<u>\$ 16,716</u>	<u>\$ 2,821</u>	<u>\$ 661</u>	<u>\$ 3,484</u>

In connection with the restructuring activities discussed in Note 6, we transferred the research and development activities of our instrumentation business to a new company, Hombrechtikon Systems Engineering AG (HSE), in which we acquired a 19.0% interest for a total obligation of \$9.8 million which is payable over three years. As of December 31, 2016, \$3.9 million was included in accrued and other current liabilities and \$5.9 million was included in other long-term liabilities in the accompanying consolidated balance sheet. HSE is a variable interest entity and we are not the primary beneficiary as we do not hold the power to direct the activities that most significantly impact the economic performance of HSE. Therefore, HSE is not consolidated. In 2016, we recorded an impairment of the investment in HSE of \$8.3 million in other expense, net and accordingly, as of December 31, 2016, the investment has a carrying value of \$1.5 million, which is included in other long-term assets in the consolidated balance sheets, representing our maximum exposure to loss.

We had a 100% interest in QIAGEN Finance (Luxembourg) S.A. (QIAGEN Finance) which was established for the purpose of issuing convertible debt in 2004. The proceeds of the 2004 Notes were loaned to subsidiaries within the consolidated QIAGEN N.V. group. QIAGEN N.V. had guaranteed the 2004 Notes, and had agreements with QIAGEN Finance to issue common shares to the investors in the event of conversion of the 2004 Notes. QIAGEN Finance was a variable interest entity. We did not hold any variable interests in QIAGEN Finance, and we were not the primary beneficiary, therefore QIAGEN Finance was not consolidated. Accordingly, the 2004 convertible debt was not included in the consolidated statements of QIAGEN N.V., though QIAGEN N.V. did report the full obligation of the debt through its liabilities to QIAGEN Finance. QIAGEN N.V. accounted for its investment in QIAGEN Finance as an equity investment until the first quarter of 2015 and accordingly recorded 100% of the profit or loss of QIAGEN Finance in the gain or loss from equity method investees. During the first quarter of 2015, we repaid the \$250.9 million loan to QIAGEN Finance and repurchased the warrant agreement with QIAGEN Finance.

Cost Method Investments

At December 31, 2016 and 2015, we had a total of cost-method investments in non-publicly traded companies with carrying amounts of \$38.2 million and \$17.2 million, respectively, which are included in other long-term assets in the consolidated balance sheets. The fair-value of these cost-method investments are not estimated unless there are identified events or changes in circumstances that may have a significant adverse effect on the fair value of the investment. During the years ended December 31, 2016, and 2015, we made cost-method investments totaling \$20.5 million, and \$4.4 million, respectively. In August 2016, we converted a \$0.6 million short-term loan into additional ownership interest of a cost-method investment. In 2015, we recorded total impairments to a cost method investment of \$2.2 million in other expense, net. In 2014, we recorded total impairments to a cost method investment of \$6.0 million of which \$4.8 million was recorded in other expense, net and \$1.2 million was recorded in research and development expense.

Marketable Equity Securities

During 2016, we made an investment in HTG Molecular Diagnostics, Inc., a publicly traded company, that is classified as a long-term marketable security. At December 31, 2016, we held 833,333 shares with a fair market value of \$1.9 million and a cost of \$2.0 million. Our former cost-method investment in Curetis AG was reclassified as a long-term marketable security during 2015 upon the completed IPO of its Dutch holding company, Curetis N.V. At December 31, 2016, we held 320,712 shares with a cost of \$2.3 million. As of December 31, 2016 and 2015, the fair market value of these shares was \$2.2 million and \$3.5 million, respectively. Long-term marketable securities are included in other long-term assets in the accompanying consolidated balance sheets.

11. Goodwill and Intangible Assets

The following sets forth the intangible assets by major asset class as of December 31, 2016 and 2015:

(in thousands)	Weighted Average Life (in years)	2016		2015	
		Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortized Intangible Assets:					
Patent and license rights	10.61	\$ 373,609	\$ (233,406)	\$ 338,175	\$ (205,880)
Developed technology	10.64	708,825	(469,312)	693,294	(409,374)
Customer base, trademarks, and non-compete agreements	10.71	422,797	(245,354)	432,036	(211,830)
	10.65	<u>\$ 1,505,231</u>	<u>\$ (948,072)</u>	<u>\$ 1,463,505</u>	<u>\$ (827,084)</u>
Unamortized Intangible Assets:					
Goodwill		<u>\$ 1,925,518</u>		<u>\$ 1,875,698</u>	

The changes in intangible assets for the years ended December 31, 2016 and 2015 are as follows:

(in thousands)	Intangibles	Goodwill
BALANCE AT DECEMBER 31, 2014	\$ 726,914	\$ 1,887,963
Additions	45,575	—
Purchase adjustments	(8,200)	1,656
Acquisitions	31,412	37,084
Amortization	(131,953)	—
Impairment losses	(205)	—
Foreign currency translation adjustments	(27,122)	(51,005)
BALANCE AT DECEMBER 31, 2015	\$ 636,421	\$ 1,875,698
Additions	70,937	76,807
Purchase adjustments	(321)	316
Acquisitions	23,700	—
Amortization	(137,949)	—
Disposals	(29)	(2,650)
Impairment losses	(21,423)	—
Foreign currency translation adjustments	(14,177)	(24,653)
BALANCE AT DECEMBER 31, 2016	<u>\$ 557,159</u>	<u>\$ 1,925,518</u>

Amortization expense on intangible assets totaled approximately \$137.9 million, \$132.0 million and \$132.9 million, respectively, for the years ended December 31, 2016, 2015 and 2014.

In 2016, we recorded an intangible asset abandonment charge of \$21.4 million related to the discontinuation of existing technologies in connection with the restructuring discussed more fully in Note 6. Of this abandonment charge, \$10.3 million is

included in cost of sales and \$11.1 million is included in research and development in the accompanying consolidated statements of income.

Cash paid for purchases of intangible assets during the years ended December 31, 2016 and 2015 totaled \$19.4 million and \$19.7 million of which \$3.9 million and \$6.4 million, respectively, were not yet in service and are included in other long-term assets in the consolidated balance sheet. Intangible asset additions of \$70.9 million includes \$15.5 million of cash paid during the year ended December 31, 2016, together with \$7.1 million of additions which were previously recorded as prepayments and \$48.4 million of additions which were accrued as of December 31, 2016. Of the accrued additions, \$46.3 million relate to licenses for which fixed payments are expected to occur through the end of the license term in 2024.

The changes in the carrying amount of goodwill during the years ended December 31, 2016 and 2015 resulted primarily from changes in foreign currency translation together with acquired goodwill from the 2016 acquisition of Exiqon and adjustments made in connection with 2015 purchase price allocation for the acquisition of MO BIO Laboratories Inc. discussed in Note 5. Additionally, \$2.6 million of goodwill was disposed of in connection with the transfer of the research and development activities of our instrumentation business as part of the restructuring program discussed in Note 6. Accumulated goodwill impairment totaled \$1.6 million as of December 31, 2016 and 2015.

Amortization of intangibles for the next five years is expected to be approximately:

(in thousands)	Amortization
Years ended December 31:	
2017	\$ 128,561
2018	\$ 106,175
2019	\$ 84,389
2020	\$ 59,125
2021	\$ 50,845

12. Accrued and Other Current Liabilities

Accrued and other current liabilities at December 31, 2016 and 2015 consist of the following:

(in thousands)	2016	2015
Accrued expenses	\$ 74,245	\$ 51,784
Payroll and related accruals	54,772	52,036
Deferred revenue	44,629	49,812
Restructuring	27,590	4,144
Accrued royalties	7,801	13,786
Cash collateral	6,984	7,826
Fair value of derivative instruments	6,089	525
Accrued interest on long-term debt	4,239	4,239
Accrued contingent consideration and milestone payments	2,957	6,995
Current portion of capital lease obligations	999	922
Total accrued and other current liabilities	<u>\$ 230,305</u>	<u>\$ 192,069</u>

13. Derivatives and Hedging

In the ordinary course of business, we use derivative instruments, including swaps, forwards and/or options, to manage potential losses from foreign currency exposures and interest bearing assets or liabilities. The principal objective of such derivative instruments is to minimize the risks and/or costs associated with our global financial and operating activities. We do not utilize derivative or other financial instruments for trading or other speculative purposes. We recognize all derivatives as either assets or liabilities on the balance sheet on a gross basis, measure those instruments at fair value and recognize the change in fair value in earnings in the period of change, unless the derivative qualifies as an effective hedge that offsets certain exposures. In 2015, we agreed with almost all of our counterparties with whom we had entered into cross-currency swaps, interest rate swaps or foreign exchange contracts, to enter into bilateral collateralization contracts under which will receive or provide cash collateral, as the case may be, for the net position with each of these counterparties. As of December 31, 2016,

cash collateral positions consisted of \$7.0 million recorded in accrued and other current liabilities and \$1.2 million recorded in prepaid and other current assets in the accompanying consolidated balance sheet. As of December 31, 2015, \$7.8 million was recorded in accrued and other current liabilities in the accompanying consolidated balance sheet.

As of December 31, 2016 and 2015, we held derivative instruments that are designated and qualify as cash flow hedges where the effective portion of the gain or loss on the derivative is reported as a component of other comprehensive income (loss) and reclassified into earnings in the same period or periods during which the hedged transaction affects earnings. Gains and losses on the derivative representing either hedge ineffectiveness or hedge components excluded from the assessment of effectiveness are recognized in current earnings. In 2016 and in 2015, we did not record any hedge ineffectiveness related to any cash-flow hedges in earnings. Based on their valuation as of December 31, 2016, we expect approximately \$7.6 million of derivative losses included in accumulated other comprehensive loss will be reclassified into income during the next 12 months. The cash flows derived from derivatives are classified in the consolidated statements of cash flows in the same category as the consolidated balance sheet account of the underlying item.

As of December 31, 2016 and 2015, we held derivative instruments that qualify for hedge accounting as fair value hedges. For derivative instruments that are designated and qualify as a fair value hedge, the effective portion of the gain or loss on the derivative is reflected in earnings. This earnings effect is offset by the change in the fair value of the hedged item attributable to the risk being hedged that is also recorded in earnings. In 2016 and 2015, we concluded there was no ineffectiveness. The cash flows derived from derivatives are classified in the consolidated statements of cash flows in the same category as the consolidated balance sheet account of the underlying item.

Interest Rate Derivatives

We use interest rate derivative contracts to align our portfolio of interest bearing assets and liabilities with our risk management objectives. During 2015, we entered into five cross currency interest rate swaps through 2025 for a total notional amount of €180.0 million which qualify for hedge accounting as cash flow hedges. We determined that no ineffectiveness exists related to these swaps. As of December 31, 2016, the €180.0 million notional swap amount had a fair value of \$1.4 million and accrued and unpaid interest of \$1.7 million which are recorded in other long-term assets and prepaid and other current assets, respectively, in the accompanying consolidated balance sheet. As of December 31, 2015, this swap had a fair value of \$5.3 million and accrued and unpaid interest of \$1.6 million which are both recorded in other long-term assets in the accompanying consolidated balance sheet.

During 2014, we entered into interest rate swaps, which effectively fixed the fair value of \$200.0 million of our fixed rate private placement debt and qualify for hedge accounting as fair value hedges. We determined that no ineffectiveness exists related to these swaps. As of December 31, 2016, the \$200.0 million notional swap amount had a fair value of \$3.1 million and accrued and unpaid interest of \$0.6 million which are both recorded in other long-term assets and prepaid and other current assets, respectively, in the accompanying consolidated balance sheet. As of December 31, 2015, this swap had a fair value of \$5.0 million and accrued and unpaid interest of \$0.8 million which are both recorded in other long-term assets in the accompanying balance sheet.

Call Options

We entered into Call Options during 2014 which, along with the sale of the Warrants, represent the Call Spread Overlay entered into in connection with the Cash Convertible Notes and which are more fully described in Note 15. We used \$105.2 million of the proceeds from the issuance of the Cash Convertible Notes to pay the premium for the Call Options, and simultaneously received \$68.9 million (net of issuance costs) from the sale of the Warrants, for a net cash outlay of \$36.3 million for the Call Spread Overlay. The Call Options are intended to address the equity price risk inherent in the cash conversion feature by offsetting cash payments in excess of the principal amount due upon any conversion of the Cash Convertible Notes.

Aside from the initial payment of a premium of \$105.2 million for the Call Options, we will not be required to make any cash payments under the Call Options. We will, however, be entitled to receive under the terms of the Call Options an amount of cash generally equal to the amount by which the market price per share of our common stock exceeds the exercise price of the Call Options during the relevant valuation period. The exercise price under the Call Options is equal to the conversion price of the Cash Convertible Notes.

The Call Options, for which our common stock is the underlying security, are a derivative asset that requires mark-to-market accounting treatment due to the cash settlement features until the Call Options settle or expire. The Call Options are measured and reported at fair value on a recurring basis, within Level 2 of the fair value hierarchy. For further discussion of the inputs used to determine the fair value of the Call Options, refer to Note 14. The fair value of the Call Options at December 31, 2016 and 2015 was approximately \$185.8 million and \$169.0 million, respectively which is recorded in other long-term assets in the accompanying consolidated balance sheet.

The Call Options do not qualify for hedge accounting treatment. Therefore, the change in fair value of these instruments is recognized immediately in our consolidated statements of income in other expense, net. For the years ended December 31,

2016 and 2015, the changes in the fair value of the Call Options resulted in gains of \$16.7 million and \$21.3 million, respectively. Because the terms of the Call Options are substantially similar to those of the Cash Convertible Notes' embedded cash conversion option, discussed below, we expect the effect on earnings from those two derivative instruments to mostly offset each other.

Cash Convertible Notes Embedded Cash Conversion Option

The embedded cash conversion option within the Cash Convertible Notes is required to be separated from the Cash Convertible Notes and accounted for separately as a derivative liability, with changes in fair value reported in our consolidated statements of income in other expense, net until the cash conversion option settles or expires. For further discussion of the Cash Convertible Notes, refer to Note 15. The initial fair value liability of the embedded cash conversion option was \$105.2 million, which simultaneously reduced the carrying value of the Cash Convertible Notes (effectively an original issuance discount). The embedded cash conversion option is measured and reported at fair value on a recurring basis, within Level 2 of the fair value hierarchy. For further discussion of the inputs used to determine the fair value of the embedded cash conversion option, refer to Note 14. The fair value of the embedded cash conversion option at December 31, 2016 and 2015 was approximately \$187.5 million and \$171.0 million which is recorded in other long-term liabilities in the accompanying balance sheet. For the years ended December 31, 2016 and 2015 the change in the fair value of the embedded cash conversion option resulted in losses of \$16.6 million and \$21.5 million, respectively.

Foreign Currency Derivatives

As a globally active enterprise, we are subject to risks associated with fluctuations in foreign currencies in our ordinary operations. This includes foreign currency-denominated receivables, payables, debt, and other balance sheet positions including intercompany items. We manage balance sheet exposure on a group-wide basis using foreign exchange forward contracts, foreign exchange options and cross-currency swaps.

Undesignated Derivative Instruments

We are party to various foreign exchange forward, option and swap arrangements which had, at December 31, 2016, an aggregate notional value of \$347.6 million and fair values of \$3.2 million and \$6.1 million included in prepaid and other current assets and accrued and other current liabilities, respectively, which expire at various dates through December 2017. We were party to various foreign exchange forward and swap arrangements which had, at December 31, 2015, an aggregate notional value of \$264.2 million and fair values of \$1.4 million and \$0.5 million included in prepaid and other current assets and accrued and other current liabilities, respectively, which expired at various dates through March 2016. The transactions have been entered into to offset the effects from short-term balance sheet exposure to foreign currency exchange risk. Changes in the fair value of these arrangements have been recognized in other expense, net.

Fair Values of Derivative Instruments

The following table summarizes the fair value amounts of derivative instruments reported in the consolidated balance sheets as of December 31, 2016 and 2015:

(in thousands)	Derivatives in Asset Positions Fair value		Derivatives in Liability Positions Fair value	
	2016	2015	2016	2015
Derivative instruments designated as hedges				
Interest rate contracts ⁽¹⁾	\$ 6,655	\$ 12,687	\$ —	\$ —
Total derivative instruments designated as hedges	\$ 6,655	\$ 12,687	\$ —	\$ —
Undesignated derivative instruments				
Call spread overlay	\$ 185,750	\$ 169,037	\$ (187,546)	\$ (170,951)
Foreign exchange contracts	3,154	1,393	(6,089)	(525)
Total derivative instruments	\$ 188,904	\$ 170,430	\$ (193,635)	\$ (171,476)

(1) The fair value amounts for the interest rate contracts include accrued interest.

Gains and Losses on Derivative Instruments

The following tables summarize the classification and gains and losses on derivative instruments for the years ended December 31, 2016, 2015 and 2014:

Year-Ended December 31, 2016 (in thousands)	Gain/(loss) recognized in AOCI	Location of gain/loss in income statement	(Gain) loss reclassified from AOCI into income	Gain (loss) recognized in income
Cash flow hedges				
Interest rate contracts	\$ (3,969)	Other expense, net	\$ (6,228)	n/a
Fair value hedges				
Interest rate contracts	\$ —	Other expense, net	\$ —	\$ (1,930)
Undesignated derivative instruments				
Call spread overlay	n/a	Other expense, net	n/a	\$ 118
Foreign exchange contracts	n/a	Other expense, net	n/a	(6,072)
				<u>\$ (5,954)</u>
Year-Ended December 31, 2015 (in thousands)				
Cash flow hedges				
Interest rate contracts	\$ 5,337	Other expense, net	\$ (5,273)	n/a
Fair value hedges				
Interest rate contracts	\$ —	Other expense, net	\$ —	\$ 1,691
Undesignated derivative instruments				
Call spread overlay	n/a	Other expense, net	n/a	\$ (171)
Foreign exchange contracts	n/a	Other expense, net	n/a	21,434
				<u>\$ 21,263</u>
Year-Ended December 31, 2014 (in thousands)				
Fair value hedges				
Interest rate contracts	\$ —	Other expense, net	\$ —	\$ 3,294
Undesignated derivative instruments				
Call spread overlay	n/a	Other expense, net	n/a	\$ (1,743)
Foreign exchange contracts	n/a	Other expense, net	n/a	\$ 61,713
				<u>\$ 59,970</u>

The amounts noted in the table above for accumulated other comprehensive income (AOCI) do not include any adjustment for the impact of deferred income taxes.

14. Fair Value Measurements

Assets and liabilities are measured at fair value according to a three-tier fair value hierarchy which prioritizes the inputs used in measuring fair value as follows:

Level 1. Observable inputs, such as quoted prices in active markets;

Level 2. Inputs, other than the quoted price in active markets, that are observable either directly or indirectly; and

Level 3. Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

Our assets and liabilities measured at fair value on a recurring basis consist of short-term investments, which are classified in Level 1 and Level 2 of the fair value hierarchy, marketable securities discussed in Note 10, which are classified in Level 1, derivative contracts used to hedge currency and interest rate risk and derivative financial instruments entered into in connection with the Cash Convertible Notes discussed in Note 15, which are classified in Level 2 of the fair value hierarchy, and contingent consideration accruals which are classified in Level 3 of the fair value hierarchy, and are shown in the tables below.

In determining fair value for Level 2 instruments, we apply a market approach, using quoted active market prices relevant to the particular instrument under valuation, giving consideration to the credit risk of both the respective counterparty to the contract and the Company. To determine our credit risk, we estimated our credit rating by benchmarking the price of outstanding debt to publicly-available comparable data from rated companies. Using the estimated rating, our credit risk was quantified by reference to publicly-traded debt with a corresponding rating. The Level 2 derivative financial instruments include the Call Options asset and the embedded conversion option liability. See Note 15, "Lines of Credit and Debt", and Note 13, "Derivatives and Hedging", for further information. The derivatives are not actively traded and are valued based on an option pricing model that uses observable market data for inputs. Significant market data inputs used to determine fair values as of December 31, 2016 included our common stock price, the risk-free interest rate, and the implied volatility of our common stock. The Call Options asset and the embedded cash conversion option liability were designed with the intent that changes in their fair values would substantially offset, with limited net impact to our earnings. Therefore, the sensitivity of changes in the unobservable inputs to the option pricing model for such instruments is substantially mitigated.

Our Level 3 instruments include contingent consideration liabilities. We value contingent consideration liabilities using unobservable inputs, applying the income approach, such as the discounted cash flow technique, or the probability-weighted scenario method. Contingent consideration arrangements obligate us to pay the sellers of an acquired entity if specified future events occur or conditions are met such as the achievement of technological or revenue milestones. We use various key assumptions, such as the probability of achievement of the milestones (0% to 100%) and the discount rate (between 2.2% and 7.7%), to represent the non-performing risk factors and time value when applying the income approach. We regularly review the fair value of the contingent consideration, and reflect any change in the accrual in the consolidated statements of income in the line items commensurate with the underlying nature of milestone arrangements.

The following table presents our fair value hierarchy for our financial assets and liabilities measured at fair value on a recurring basis:

(in thousands)	As of December 31, 2016				As of December 31, 2015			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Short-term investments	\$ 3,699	\$ 89,300	\$ —	\$ 92,999	\$ 3,674	\$ 127,143	\$ —	\$ 130,817
Marketable securities	4,064	—	—	4,064	3,485	—	—	3,485
Call option	—	185,750	—	185,750	—	169,037	—	169,037
Foreign exchange contracts	—	3,154	—	3,154	—	1,393	—	1,393
Interest rate contracts	—	6,655	—	6,655	—	12,687	—	12,687
	<u>\$ 7,763</u>	<u>\$ 284,859</u>	<u>\$ —</u>	<u>\$ 292,622</u>	<u>\$ 7,159</u>	<u>\$ 310,260</u>	<u>\$ —</u>	<u>\$ 317,419</u>
Liabilities:								
Foreign exchange contracts	\$ —	\$ (6,089)	\$ —	\$ (6,089)	\$ —	\$ (525)	\$ —	\$ (525)
Cash conversion option	—	(187,546)	—	(187,546)	—	(170,951)	—	(170,951)
Contingent consideration	—	—	(8,754)	(8,754)	—	—	(17,678)	(17,678)
	<u>\$ —</u>	<u>\$ (193,635)</u>	<u>\$ (8,754)</u>	<u>\$ (202,389)</u>	<u>\$ —</u>	<u>\$ (171,476)</u>	<u>\$ (17,678)</u>	<u>\$ (189,154)</u>

For liabilities with Level 3 inputs, the following table summarizes the activity for the years ended December 31, 2016 and 2015:

(in thousands)	Contingent Consideration	
BALANCE AT DECEMBER 31, 2014	\$	(17,477)
Additions from acquisitions		(5,476)
Gain included in earnings		5,225
Foreign currency translation adjustments		50
BALANCE AT DECEMBER 31, 2015	\$	(17,678)
Additions		(692)
Payments		3,120
Gain included in earnings		6,501
Foreign currency translation adjustments		(5)
BALANCE AT DECEMBER 31, 2016	\$	(8,754)

For the year ended December 31, 2016, of the total \$8.8 million accrued for contingent consideration, \$5.8 million is included in other long-term liabilities and \$3.0 million is included in accrued and other current liabilities. During 2016, a \$6.5 million gain for the reduction in the fair value of contingent consideration related to unmet milestones was recognized in general and administrative, integration and other in the accompanying consolidated statements of income. During 2015, gains for the reduction in the fair value of contingent consideration totaling \$5.2 million were recognized in general and administrative, integration and other.

The carrying values of financial instruments, including cash and cash equivalents, accounts receivable, accounts payable and other accrued liabilities, approximate their fair values due to their short-term maturities. The estimated fair value of long-term debt as disclosed in Note 15 was based on current interest rates for similar types of borrowings. The estimated fair values may not represent actual values of the financial instruments that could be realized as of the balance sheet date or that will be realized in the future. There were no fair value differences in the years ended December 31, 2016 and 2015 for nonfinancial assets or liabilities required to be measured at fair value on a nonrecurring basis other than the impairment of cost-method investments as discussed in Note 10.

15. Lines of Credit and Debt

Our credit facilities available and undrawn at December 31, 2016 total €436.6 million (approximately \$460.2 million). This includes a €400.0 million syndicated multi-currency revolving credit facility expiring December 2021 of which no amounts were utilized at December 31, 2016 or at December 31, 2015, and four other lines of credit amounting to €36.6 million with no expiration date, none of which were utilized as of December 31, 2016 or as of December 31, 2015. The €400.0 million facility can be utilized in Euro, British pounds sterling, Swiss franc or U.S. dollar and bears interest of 0.4% to 1.2% above three months EURIBOR, or LIBOR in relation to any loan not in euro, and is offered with interest periods of one, two, three or six months. The commitment fee is calculated based on 35% of the applicable margin. In 2016 and 2015, \$1.0 million and \$0.9 million of commitment fees were paid, respectively. The revolving facility agreement contains certain financial and non-financial covenants, including but not limited to, restrictions on the encumbrance of assets and the maintenance of certain financial ratios. We were in compliance with these covenants at December 31, 2016. The credit facilities are for general corporate purposes.

At December 31, 2016 and December 31, 2015, total long-term debt, net of debt issuance costs of \$8.1 million and \$10.6 million, respectively, consists of the following:

(in thousands)	2016	2015
3.19% Series A Senior Notes due October 16, 2019	\$ 73,408	\$ 73,790
3.75% Series B Senior Notes due October 16, 2022	301,601	302,943
3.90% Series C Senior Notes due October 16, 2024	26,910	26,898
0.375% Senior Unsecured Cash Convertible Notes due 2019	402,806	391,111
0.875% Senior Unsecured Cash Convertible Notes due 2021	262,371	254,284
Total long-term debt	<u>\$ 1,067,096</u>	<u>\$ 1,049,026</u>

The notes are all unsecured obligations that rank pari passu. Interest expense on long-term debt was \$35.8 million, \$34.5 million and \$36.4 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Future maturities (stated at the carrying values) of long-term debt as of December 31, 2016 are as follows:

Year ending December 31,	(in thousands)
2017	\$ —
2018	—
2019	476,214
2020	—
2021	262,371
thereafter	328,511
	<u>\$ 1,067,096</u>

Cash Convertible Notes due 2019 and 2021

On March 19, 2014, we issued \$730.0 million aggregate principal amount of Cash Convertible Senior Notes of which \$430.0 million is due in 2019 (2019 Notes) and \$300.0 million is due in 2021 (2021 Notes). We refer to the 2019 Notes and 2021 Notes, collectively as the “Cash Convertible Notes”. The aggregate net proceeds of the Cash Convertible Notes were \$680.7 million, after payment of the net cost of the Call Spread Overlay described below and transaction costs. Additionally, we used \$372.5 million of the net proceeds to repay the 2006 Notes and related subscription right described below.

Interest on the Cash Convertible Notes is payable semiannually in arrears on March 19 and September 19 of each year, at rates of 0.375% and 0.875% per annum for the 2019 Notes and 2021 Notes, respectively, commencing September 19, 2014. The 2019 Notes will mature on March 19, 2019 and the 2021 Notes will mature on March 19, 2021, unless repurchased or converted in accordance with their terms prior to such date.

The Cash Convertible Notes are convertible into cash in whole, but not in part, at the option of noteholders in the following circumstances: (a) from April 29, 2014 through September 18, 2018 for the 2019 Notes, and September 18, 2020 for the 2021 Notes (Contingent Conversion Period), under any of the Contingent Conversion Conditions and (b) at any time following the Contingent Conversion Period through the fifth business day immediately preceding the applicable maturity Date. Upon conversion, noteholders will receive an amount in cash equal to the Cash Settlement Amount, calculated as described below. The Cash Convertible Notes are not convertible into shares of our common stock or any other securities.

Noteholders may convert their Cash Convertible Notes into cash at their option at any time during the Contingent Conversion Period only under the following circumstances (Contingent Conversion Conditions):

- during any calendar quarter commencing after the calendar quarter ending on March 31, 2014 (and only during such calendar quarter), if the last reported sale price of our common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- if we undergo certain fundamental changes as defined in the agreement;
- during the five business day period immediately after any ten consecutive trading day period in which the quoted price for the 2019 Notes or the 2021 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of our common stock and the conversion rate on each such trading day;
- if we elect to distribute assets or property to all or substantially all of the holders of our common stock and those assets or other property have a value of more than 25% of the average daily volume-weighted average trading price of our common stock for the prior 20 consecutive trading days;

- if we elect to redeem the Cash Convertible Notes; or
- if we experience certain customary events of default, including defaults under certain other indebtedness.

As adjusted by the synthetic share repurchase discussed in Note 17, the conversion rate is 7,063.1647 shares of our common stock per \$200,000 principal amount of Cash Convertible Notes (reflecting an adjusted conversion price of approximately \$28.32 per share of common stock). Upon conversion, holders are entitled to a cash payment (Cash Settlement Amount) equal to the average of the conversion rate multiplied by the daily volume-weighted average trading price for our common stock over a 50-day period. The conversion rate is subject to adjustment in certain instances but will not be adjusted for any accrued and unpaid interest. In addition, following the occurrence of certain corporate events that may occur prior to the applicable maturity date, we may be required to pay a cash make-whole premium by increasing the conversion rate for any holder who elects to convert Cash Convertible Notes in connection with the occurrence of such a corporate event.

We may redeem the 2019 Notes or 2021 Notes in their entirety at a price equal to 100% of the principal amount of the applicable Cash Convertible Notes plus accrued interest at any time when 20% or less of the aggregate principal amount of the applicable Cash Convertible Notes originally issued remain outstanding.

Because the Cash Convertible Notes contain an embedded cash conversion option, we have determined that the embedded cash conversion option is a derivative financial instrument, which is required to be separated from the Cash Convertible Notes and accounted for separately as a derivative liability, with changes in fair value reported in our consolidated statements of income until the cash conversion option transaction settles or expires. The initial fair value liability of the embedded cash conversion option was \$105.2 million, which simultaneously reduced the carrying value of the Cash Convertible Notes (effectively an original issuance discount). For further discussion of the derivative financial instruments relating to the Cash Convertible Notes, refer to Note 13.

As noted above, the reduced carrying value on the Cash Convertible Notes resulted in a debt discount that is amortized to the principal amount through the recognition of non-cash interest expense over the expected life of the debt, which is five and seven years for the 2019 Notes and 2021 Notes, respectively. This resulted in our recognition of interest expense on the Cash Convertible Notes at an effective rate approximating what we would have incurred had nonconvertible debt with otherwise similar terms been issued. The effective interest rate of the 2019 and 2021 Notes is 2.937% and 3.809%, respectively, which is imputed based on the amortization of the fair value of the embedded cash conversion option over the remaining term of the Cash Convertible Notes. As of December 31, 2016, we expect the 2019 Notes to be outstanding until their 2019 maturity date and the 2021 Notes to be outstanding until their 2021 maturity date, for remaining amortization periods of approximately five and seven years, respectively. Based on an estimation using available over-the-counter market information on the Cash Convertible Notes, the fair value of the 2019 Notes was \$485.9 million and \$495.5 million and the fair value of the 2021 Notes was \$349.6 million and \$356.1 million, at December 31, 2016 and 2015, respectively.

In connection with the issuance of the Cash Convertible Notes, we incurred approximately \$13.1 million in transaction costs. Such costs have been allocated to the Cash Convertible Notes and deferred as a long-term asset and are being amortized over the terms of the Cash Convertible Notes.

Interest expense related to the Cash Convertible Notes was comprised of the following:

(in thousands)	Year-Ended December 31	
	2016	2015
Coupon interest	\$ 4,238	\$ 4,238
Amortization of original issuance discount	17,503	16,935
Amortization of debt issuance costs	2,279	2,220
Total interest expense related to the Cash Convertible Notes	<u>\$ 24,020</u>	<u>\$ 23,393</u>

Cash Convertible Notes Call Spread Overlay

Concurrent with the issuance of the Cash Convertible Notes, we entered into privately negotiated hedge transactions (Call Options) with, and issued warrants to purchase shares of our common stock (Warrants) to, certain financial institutions. We refer to the Call Options and Warrants collectively as the “Call Spread Overlay”. The Call Options are intended to offset any cash payments payable by us in excess of the principal amount due upon any conversion of the Cash Convertible Notes. We used \$105.2 million of the proceeds from the issuance of the Cash Convertible Notes to pay for the Call Options, and simultaneously received \$69.4 million from the sale of the Warrants, for a net cash outlay of \$35.8 million for the Call Spread Overlay. The Call Options are derivative financial instruments and are discussed further in Note 13. The Warrants are equity instruments and are further discussed in Note 17.

Aside from the initial payment of a premium of \$105.2 million for the Call Option, we will not be required to make any cash payments under the Call Options, and will be entitled to receive an amount of cash, generally equal to the amount by which the

market price per share of our common stock exceeds the exercise price of the Call Options during the relevant valuation period. The exercise price under the Call Options is initially equal to the conversion price of the Cash Convertible Notes.

The Warrants cover an aggregate of 25.8 million shares of our common stock (subject to anti-dilution adjustments under certain circumstances) and have an initial exercise price of \$32.085 per share, subject to customary adjustments. The Warrants expire as follows: Warrants to purchase 15.2 million shares expire over a period of 50 trading days beginning on December 27, 2018 and Warrants to purchase 10.6 million shares expire over a period of 50 trading days beginning on December 29, 2020. The Warrants are European-style (exercisable only upon expiration). The Warrants could have a dilutive effect to the extent that the price of our common stock exceeds the applicable strike price of the Warrants. For each Warrant that is exercised, we will deliver to the holder a number of shares of our common stock equal to the amount by which the settlement price exceeds the exercise price, divided by the settlement price, plus cash in lieu of any fractional shares. We will not receive any proceeds if the Warrants are exercised.

Private Placement

In October 2012, we completed a private placement through the issuance of new senior unsecured notes at a total amount of \$399.9 million with a weighted average interest rate of 3.66% (settled on October 16, 2012). The notes were issued in three series: (1) \$73.0 million 7-year term due in 2019 (3.19%); (2) \$300.0 million 10-year term due in 2022 (3.75%); and (3) \$26.9 million 12-year term due in 2024 (3.90%). We paid \$2.1 million in debt issue costs which will be amortized through interest expense over the lifetime of the notes. Approximately €170.0 million (approximately \$220 million) of proceeds from the notes were used to repay amounts outstanding under our short-term revolving credit facility in 2012. The remainder of the proceeds provides additional resources to support our longer-term business expansion. The note purchase agreement contains certain financial and non-financial covenants, including but not limited to, restrictions on priority indebtedness and the maintenance of certain financial ratios. We were in compliance with these covenants at December 31, 2016. Based on an estimation using the changes in the U.S. Treasury rates, the Level 2 fair value of these senior notes as of December 31, 2016 and December 31, 2015 was approximately \$397.1 million and \$399.3 million, respectively. During 2014, we entered into interest rate swaps, which effectively fixed the fair value of the \$200.0 million of this debt and qualify for hedge accounting as fair value hedges as described in Note 13.

2006 Notes

In May 2006, we completed the offering of \$300 million of 3.25% Senior Convertible Notes due in 2026 (2006 Notes) through an unconsolidated subsidiary, QIAGEN Euro Finance (Euro Finance). The net proceeds of the 2006 Notes were loaned by Euro Finance to consolidated subsidiaries. These long-term notes payable to Euro Finance had an effective interest rate of 3.7% and were due in May 2026. Interest was payable semi-annually in May and November. The 2006 Notes were issued at 100% of principal value, and were convertible into 15.0 million common shares at the option of the holders upon the occurrence of certain events, at a price of \$20.00 per share, subject to adjustment. QIAGEN N.V. had an agreement with QIAGEN Euro Finance to issue shares to the investors in the event of conversion. This subscription right, along with the related receivable, was recorded at fair value in the equity of QIAGEN N.V. as paid-in capital. In March 2014, we redeemed the \$300.0 million loan payable to Euro Finance and approximately 98% of the subscription right with QIAGEN Euro Finance for \$372.5 million, and recognized a loss on the redemption of \$4.6 million in other expense, net. The repayment amount was allocated to the loan and warrants on a relative fair value basis with \$113.0 million recorded against additional paid in capital for the redemption of the warrant subscription receivable. Contemporaneously, QIAGEN Euro Finance redeemed the 2006 Notes. During 2014, we issued 0.2 million common shares in exchange for \$3.9 million upon the exercise of the remaining subscription rights and subsequently Euro Finance was liquidated.

2004 Notes

In August 2004, we completed the sale of \$150 million of 1.5% Senior Convertible Notes due in 2024 (2004 Notes), through our unconsolidated subsidiary QIAGEN Finance. The net proceeds of the 2004 Notes were loaned by QIAGEN Finance to consolidated subsidiaries with an effective interest rate of 1.8% were due in February 2024. Interest was payable semi-annually in February and August. The 2004 Notes were issued at 100% of principal value, and were convertible into 11.5 million common shares at the option of the holders upon the occurrence of certain events at a price of \$12.6449 per share, subject to adjustment. QIAGEN N.V. had an agreement with QIAGEN Finance to issue shares to the investors in the event of conversion. The subscription right, along with the related receivable, was recorded at fair value in the equity of QIAGEN N.V. as paid-in capital. In 2014, 1.2 million common shares were issued in connection with the conversions. During 2015, we repaid the loan to QIAGEN Finance and repurchased the warrant agreement with QIAGEN Finance for \$250.9 million and recognized a loss of \$7.6 million in other expense, net. The repayment amount was allocated to the loan and warrants on a relative fair value basis with \$113.0 million recorded against additional paid in capital for the redemption of the warrant subscription receivable. Subsequent to these transactions QIAGEN Finance was liquidated.

16. Income Taxes

Income before income taxes for the years ended December 31, 2016, 2015 and 2014 consisted of:

(in thousands)	2016	2015	2014
Pretax income in The Netherlands	\$ 20,695	\$ 1,310	\$ (4,931)
Pretax income from foreign operations	36,213	134,993	124,320
	<u>\$ 56,908</u>	<u>\$ 136,303</u>	<u>\$ 119,389</u>

Income taxes for the years ended December 31, 2016, 2015 and 2014 are as follows:

(in thousands)	2016	2015	2014
Current—The Netherlands	\$ 6,043	\$ 973	\$ 936
—Foreign	36,536	41,862	41,667
	<u>42,579</u>	<u>42,835</u>	<u>42,603</u>
Deferred—The Netherlands	188	250	317
—Foreign	(66,162)	(36,684)	(40,464)
	<u>(65,974)</u>	<u>(36,434)</u>	<u>(40,147)</u>
Total income tax expense (benefit)	<u>\$ (23,395)</u>	<u>\$ 6,401</u>	<u>\$ 2,456</u>

In the table above and throughout Note 16, amounts related to 2015 and 2014 are revised to reflect the book and tax impact for the change in accounting principle for share-based compensation. See further discussion in the *Revision of Previously Issued Financial Statements for Change in Attribution Method* section of Note 20, *Share-Based Compensation*.

The Netherlands statutory income tax rate was 25% for the years ended December 31, 2016, 2015 and 2014. Income from foreign subsidiaries is generally taxed at the statutory income tax rates applicable in the respective countries of domicile. The principal items comprising the differences between income taxes computed at The Netherlands statutory rate and our reported income taxes and effective tax rate for the years ended December 31, 2016, 2015 and 2014 are as follows:

(in thousands)	2016		2015		2014	
	Amount	Percent	Amount	Percent	Amount	Percent
Income taxes at The Netherlands statutory rate	\$ 14,227	25.0 %	\$ 34,076	25.0%	\$ 29,847	25.0%
Taxation of foreign operations, net ⁽¹⁾	(43,265)	(76.0)	(36,407)	(26.7)	(29,958)	(25.1)
Tax impact from non-deductible items	5,938	10.4	14,219	10.4	10,263	8.6
Tax impact from tax-exempt income ⁽²⁾	(3,331)	(5.9)	(5,810)	(4.3)	(2,589)	(2.2)
Tax contingencies, net	1,761	3.1	1,163	0.9	4,409	3.7
Taxes due to changes in tax rates	399	0.7	(836)	(0.6)	330	0.3
Government incentives and other deductions ⁽³⁾	(2,543)	(4.5)	(2,754)	(2.0)	(8,617)	(7.2)
Prior year taxes	1,411	2.5	(1,201)	(0.9)	(1,950)	(1.6)
Valuation allowance	1,521	2.7	3,450	2.5	—	—
Other items, net	487	0.9	501	0.4	721	0.6
Total income tax expense (benefit)	<u>\$ (23,395)</u>	<u>(41.1)%</u>	<u>\$ 6,401</u>	<u>4.7%</u>	<u>\$ 2,456</u>	<u>2.1%</u>

(1) Our effective tax rate reflects the benefit of our global operations where certain income or loss is taxed at rates higher or lower than The Netherlands' statutory rate of 25% as well as the benefit of some income being partially exempt from income taxes due to various intercompany operating and financing activities. The most significant tax benefits from these foreign operations and financing activities are attributable to subsidiaries in Germany, Singapore, Switzerland, Ireland and Luxembourg. These foreign tax benefits are due to a combination of favorable tax laws, regulations, rulings, and exemptions in these jurisdictions. Additionally, in 2016 and 2014, in certain foreign jurisdictions (primarily Germany and the United States), we recorded acquisition related and impairment charges which reduced pretax income in these higher tax jurisdictions.

(2) The impact from tax-exempt income primarily reflects The Netherlands' benefit of the 2006 and 2004 Notes discussed in Note 15 "Lines of Credit and Debt." These notes were redeemed in 2014 and 2015, respectively, and accordingly the

related income tax benefit of \$2.6 million in 2014, did not and will not impact our effective tax rate in 2015 and beyond. In 2016, tax-exempt income includes nontaxable income in the U.S. from the release of contingent consideration accruals and nontaxable dividend income in Switzerland.

- (3) Government incentives include favorable tax regulations primarily in France in 2014 and the United States relating to research and development expense as well as the United States Internal Revenue Code Section 199 domestic production activities deduction.

We conduct business globally and, as a result, file numerous consolidated and separate income tax returns in The Netherlands, Germany, Switzerland and the U.S. federal jurisdiction, as well as in various other state and foreign jurisdictions. In the normal course of business, we are subject to examination by taxing authorities throughout the world. Tax years in The Netherlands are open since 2004 for income tax examinations by tax authorities. Our subsidiaries, with few exceptions, are no longer subject to income tax examinations by tax authorities for years before 2012. The U.S. consolidated group is subject to federal and most state income tax examinations by tax authorities beginning the year ending December 31, 2013 through the current period.

Starting in February 2014, the U.S. tax authorities (Internal Revenue Service) have been auditing our U.S. federal tax returns for 2011 and 2012. The audit was closed in 2016 without any proposed tax adjustments. As a result, we released \$6.6 million of unrecognized tax benefit due to closure of the tax audit. Additionally, in February 2016 German tax authorities began the audit of the German tax returns for the 2010-2013 tax years. This audit is currently in process and we expect the audit to close during 2017.

In 2014, we established a reserve related to cash convertible notes as discussed in Note 15 for \$3.0 million. In 2015, we received a confirmation from the relevant tax authorities, which resulted in a release of \$3.0 million reserve in 2015.

Changes in the amount of unrecognized tax benefits are as follows:

(in thousands)	Unrecognized Tax Benefits
BALANCE AT DECEMBER 31, 2014	\$ 16,002
Additions based on tax positions related to the current year	2,018
Additions for tax positions of prior years	2,640
Settlements with taxing authorities	(2,988)
Reductions due to lapse of statute of limitations	(747)
Decrease from currency translation	(190)
BALANCE AT DECEMBER 31, 2015	\$ 16,735
Additions based on tax positions related to the current year	4,218
Additions for tax positions of prior years	5,162
Decrease for tax position of prior years	(6,796)
Settlements with taxing authorities	—
Reductions due to lapse of statute of limitations	(288)
Decrease from currency translation	(737)
BALANCE AT DECEMBER 31, 2016	\$ 18,294

At December 31, 2016 and 2015, our net unrecognized tax benefits totaled approximately \$18.3 million and \$16.7 million, respectively, of which \$18.3 million and \$16.7 million in benefits, if recognized, would favorably affect our effective tax rate in any future period. It is reasonably possible that approximately \$5.8 million of the unrecognized tax benefits may be released during the next 12 months due to lapse of statute of limitations or settlements with tax authorities; however, various events could cause our current expectations to change in the future. The above unrecognized tax benefits, if ever recognized in the financial statements, would be recorded in the statement of income as part of the income tax expense.

Our policy is to recognize interest accrued related to unrecognized tax benefits in interest expense and penalties within income tax expense. For the years ended December 31, 2016, 2015 and 2014, we have net interest (income) expense and penalties of \$0.1 million, \$0.3 million and \$(0.3) million, respectively. At December 31, 2016 and 2015, we have accrued interest of \$1.5 million and \$1.4 million, respectively, which are not included in the table above.

We have recorded net deferred tax asset of \$27.8 million and deferred tax liabilities of \$37.0 million at December 31, 2016 and 2015, respectively. The components of the net deferred tax asset and liability at December 31, 2016 and 2015 are as follows:

(in thousands)	2016		2015	
	Deferred Tax Assets	Deferred Tax Liability	Deferred Tax Assets	Deferred Tax Liability
Net operating loss carryforwards	\$ 46,627	\$ —	\$ 25,771	\$ —
Accrued and other current liabilities	24,663	—	22,648	—
Inventories	2,919	(1,567)	2,394	(1,060)
Allowance for bad debts	1,060	(451)	1,121	(465)
Currency revaluation	3,474	(73)	934	(132)
Property, plant and equipment	2,096	(19,733)	1,859	(27,854)
Capital lease	830	—	1,793	—
Tax credit carryforwards	915	—	1,110	—
Unremitted profits and earnings	—	(923)	—	(902)
Intangible assets	586	(137,682)	272	(150,594)
Share-based compensation	20,282	—	20,841	—
Deferred interest deductions	76,793	—	54,307	—
Convertible debt	12,313	—	13,765	—
Other	2,652	(1,507)	2,080	(1,154)
	<u>195,210</u>	<u>(161,936)</u>	<u>148,895</u>	<u>(182,161)</u>
Valuation allowance	(5,511)	—	(3,703)	—
	<u>\$ 189,699</u>	<u>\$ (161,936)</u>	<u>\$ 145,192</u>	<u>\$ (182,161)</u>
Net deferred tax assets (liabilities)		<u>\$ 27,763</u>		<u>\$ (36,969)</u>

At December 31, 2016 and 2015, we had \$380.7 million and \$264.2 million in total foreign net operating loss (NOL) carryforwards. Included in these amounts at December 31, 2016 and 2015, were \$109.2 million and \$110.3 million of U.S. federal (NOL) carryforwards. At December 31, 2016, the entire NOL in the U.S. is subject to limitations under Section 382 of the Internal Revenue Code. The NOLs in the U.S. will expire beginning December 31, 2022 through December 31, 2032. Also included in the above amount as of December 31, 2016 and 2015, were other foreign NOL carryforwards totaling approximately \$271.5 million and \$153.9 million, respectively, with \$41.9 million of additional NOL added due to acquisitions and \$56.4 million added due to German trade tax loss generated in 2016. As of December 31, 2016, we had NOL carryforwards in Germany of \$157.4 million predominantly trade tax NOLs. Of the total \$271.5 million NOL carryforward, a portion of the foreign NOLs will be expiring beginning December 2017. The valuation allowance amounts as of the years ended December 31, 2016 and December 31, 2015 are \$5.5 million and \$3.7 million. In 2016, we recorded a valuation allowance of \$1.8 million related to NOLs and no valuation allowance was released related to the expiration of statute of limitations. We believe it is more likely than not that the net deferred tax assets as shown above will be realized.

As of December 31, 2016, a deferred tax liability has not been recognized for residual income taxes in The Netherlands on the undistributed earnings of the majority of our foreign subsidiaries as these earnings are considered to be either indefinitely reinvested or can be repatriated tax free under the Dutch participation exemption. The indefinitely reinvested earnings retained by subsidiaries amounted to \$343.9 million at December 31, 2016. Estimating the amount of the unrecognized deferred tax liability on indefinitely reinvested foreign earnings is not practicable. Should the earnings be remitted as dividends, we may be subject to taxes including withholding tax. We have \$21.4 million of undistributed earnings that we do not consider permanently reinvested and have recorded deferred income taxes or withholding taxes at December 31, 2016 and December 31, 2015, of approximately \$0.9 million.

17. Equity

Synthetic Share Repurchase

In January 2017, we completed a synthetic share repurchase that combined a direct capital repayment with a reverse stock split. The transaction was announced in August 2016 and involved an approach used by various large, multinational Dutch companies to provide returns to all shareholders in a faster and more efficient manner than traditional open-market purchases. \$244.0 million was returned to shareholders through the transaction, which reduced the total number of issued common shares by approximately 3.7% to 230.8 million (of which 4.95 million in treasury) as of January 31, 2017.

Issuance of Warrants

In March 2014, in connection with the issuance of our Cash Convertible Notes, we issued warrants (as described in Note 15) for approximately 25.8 million shares of our common stock (subject to antidilution adjustments under certain circumstances) with an initial exercise price of \$32.085 per share, subject to customary adjustments. The proceeds, net of issuance costs, from the sale of the Warrants of approximately \$68.9 million are included as additional paid in capital in the accompanying consolidated balance sheets. The Warrants expire as follows: Warrants to purchase 15.2 million shares expire over a period of 50 trading days beginning on December 27, 2018 and Warrants to purchase 10.6 million shares expire over a period of 50 trading days beginning on December 29, 2020. Following the synthetic share repurchase discussed above, the adjusted exercise price is \$32.056. The Warrants are exercisable only upon expiration. For each Warrant that is exercised, we will deliver to the holder a number of shares of our common stock equal to the amount by which the settlement price exceeds the exercise price, divided by the settlement price, plus cash in lieu of any fractional shares. The Warrants could separately have a dilutive effect on shares of our common stock to the extent that the market value per share of our common stock exceeds the applicable exercise price of the Warrants (as measured under the terms of the Warrants).

Share Repurchase Programs

We announced our first share buyback program in 2012 and in 2013, we announced a second share buyback program, to purchase another \$100.0 million of our common shares (excluding transaction costs). We completed the share repurchase program in June 2014 having repurchased between September 2013 and June 2014 a total of approximately 4.4 million QIAGEN shares were repurchased for a total aggregate cost of \$100.4 million (including performance fees), under this program.

In July 2014, we announced the launch of our third share repurchase program to purchase up to another \$100 million of our common shares (excluding transaction costs). In 2014, 2.1 million QIAGEN shares were repurchased for \$49.1 million (excluding transaction costs) and in 2015, 0.8 million QIAGEN shares were repurchased for \$20.8 million.

In connection with the synthetic share repurchase program discussed above, we announced additional share repurchases to take place via the open market during the remainder of 2017, with a view to return to our shareholders an aggregate amount of \$300 million in 2017, including the amounts already returned via the synthetic share repurchase. The cost of repurchased shares is included in treasury stock and reported as a reduction in total equity when a repurchase occurs. Repurchased shares will be held in treasury in order to satisfy various obligations, which include the warrants issued in connection with the issuance of our Cash Convertible Notes discussed above and employee share-based remuneration plans.

Accumulated Other Comprehensive Loss

The following table is a summary of the components of accumulated other comprehensive loss as of December 31, 2016 and 2015:

(in thousands)	2016	2015
Net unrealized (loss) gain on hedging contracts, net of tax	\$ (7,600)	\$ 48
Net unrealized (loss) gain on marketable securities, net of tax	(156)	1,215
Net unrealized loss on pension, net of tax	(1,498)	(2,148)
Foreign currency effects from intercompany long-term investment transactions, net of tax of \$7.7 million and \$7.4 million in 2016 and 2015, respectively	(15,901)	(15,497)
Foreign currency translation adjustments	(308,684)	(242,774)
Accumulated other comprehensive loss	\$ (333,839)	\$ (259,156)

18. Earnings per Common Share

We present basic and diluted earnings per share. Basic earnings per share is calculated by dividing the net income attributable to the owners of QIAGEN N.V. by the weighted average number of common shares outstanding. Diluted earnings per share reflect the potential dilution that would occur if all “in the money” options and warrants to issue common shares were exercised. The following schedule summarizes the information used to compute earnings per common share:

(in thousands, except per share data)	Years ended December 31,		
	2016	2015	2014
Net income attributable to the owners of QIAGEN N.V.	\$ 80,404	\$ 130,148	\$ 116,365
Weighted average number of common shares used to compute basic net income per common share	234,800	233,483	232,644
Dilutive effect of stock options and restrictive stock units	4,193	5,028	4,841
Dilutive effect of outstanding warrants	—	136	5,321
Weighted average number of common shares used to compute diluted net income per common share	238,993	238,647	242,806
Outstanding options and awards having no dilutive effect, not included in above calculation	210	37	422
Outstanding warrants having no dilutive effect, not included in above calculation	25,800	26,071	32,505
Basic earnings per common share attributable to the owners of QIAGEN N.V.	\$ 0.34	\$ 0.56	\$ 0.50
Diluted earnings per common share attributable to the owners of QIAGEN N.V.	\$ 0.34	\$ 0.55	\$ 0.48

19. Commitments and Contingencies

Lease Commitments

We lease facilities and equipment under operating lease arrangements expiring in various years through 2024. Certain rental commitments provide for escalating rental payments or have renewal options extending through various years. Certain facility and equipment leases constitute capital leases expiring in various years through 2020. The accompanying consolidated balance sheets include the assets and liabilities arising from these capital lease obligations. Rent expense under operating lease agreements was \$29.6 million, \$23.2 million and \$25.6 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Minimum future obligations under capital and operating leases at December 31, 2016 are as follows:

(in thousands)	Capital Leases	Operating Leases
2017	\$ 1,114	\$ 13,338
2018	1,534	9,292
2019	59	6,121
2020	12	3,752
2021	—	3,409
Thereafter	—	2,690
	2,719	\$ 38,602
Less: Amount representing interest	(164)	
	2,555	
Less: Current portion	(999)	
Long-term portion	\$ 1,556	

Licensing and Purchase Commitments

We have licensing agreements with companies, universities and individuals, some of which require certain up-front payments. Royalty payments are required on net product sales ranging from one to 25 percent of covered products or based on quantities sold. Several of these agreements have minimum royalty requirements. The accompanying consolidated balance sheets include accrued royalties relating to these agreements in the amount of \$7.8 million and \$13.8 million at December 31, 2016 and 2015, respectively. Royalty expense relating to these agreements amounted to \$35.9 million, \$43.2 million, and \$48.8 million for the years ended December 31, 2016, 2015 and 2014, respectively. Royalty expense is primarily recorded in cost of sales, with a small portion recorded as research and development expense depending on the use of the technology under license. Some of these agreements also have minimum raw material purchase requirements and requirements to perform specific types of research.

At December 31, 2016, we had commitments to purchase goods or services, and for future license and royalty payments. They are as follows:

(in thousands)	Purchase Commitments	License & Royalty Commitments
2017	\$ 61,643	\$ 15,969
2018	19,824	11,562
2019	12,257	10,702
2020	891	10,438
2021	661	8,066
Thereafter	—	8,765
	<u>\$ 95,276</u>	<u>\$ 65,502</u>

As of December 31, 2016, future license payments of \$14.8 million and \$40.3 million are included in accrued and other current liabilities and other long-term liabilities, respectively.

Contingent Consideration Commitments

Pursuant to the purchase agreements for certain acquisitions, as discussed more fully in Note 5, we could be required to make additional contingent cash payments totaling up to \$27.6 million based on the achievement of certain revenue and operating results milestones as follows: \$15.5 million in 2017, \$5.1 million in 2019, and \$7.0 million, payable in any 12-month period from now until 2029 based on the accomplishment of certain revenue targets. Of the \$27.6 million total contingent obligation, we have assessed the fair value at December 31, 2016, to be \$8.8 million, of which \$5.8 million is included in other long-term liabilities and \$3.0 million is included in accrued liabilities in the accompanying consolidated balance sheet.

Employment Agreements

Certain of our employment contracts contain provisions which guarantee the payments of certain amounts in the event of a change in control, as defined in the agreements, or if the executive is terminated for reasons other than cause, as defined in the agreements. At December 31, 2016, the commitment under these agreements totaled \$15.2 million. The employment agreements with the Managing Directors and the German affiliate include a clause, whereby the affiliate will compensate the Managing Directors for potential deductions under Dutch law which, since 2014, has introduced a duty to deduct from a Managing Director's remuneration any increase in the value of shares or options that were part of his pay to the extent that such increase is based on a public offer, merger or other identity changing transaction.

Contingencies

In the ordinary course of business, we provide a warranty to customers that our products are free of defects and will conform to published specifications. Generally, the applicable product warranty period is one year from the date of delivery of the product to the customer or of site acceptance, if required. Additionally, we typically provide limited warranties with respect to our services. From time to time, we also make other warranties to customers, including warranties that our products are manufactured in accordance with applicable laws and not in violation of third-party rights. We provide for estimated warranty costs at the time of the product sale. We believe our warranty reserves as of December 31, 2016 and 2015 appropriately reflect the estimated cost of such warranty obligations.

Preacquisition Contingencies

In connection with certain acquisitions, amounts were paid into escrow accounts to cover preacquisition contingencies assumed in the acquisition. The escrow amounts that are certain to be claimed by QIAGEN are recorded as an other long-term asset and amount to \$2.5 million as of December 31, 2016. As of December 31, 2015, \$2.5 million was recorded in prepaid expenses and other current assets in the accompanying consolidated balance sheets.

Litigation

From time to time, we may be party to legal proceedings incidental to our business. As of December 31, 2016, certain claims, suits or legal proceedings arising out of the normal course of business have been filed or were pending against QIAGEN or its subsidiaries. These matters have arisen in the ordinary course and conduct of business, as well as through acquisition. Although it is not possible to predict the outcome of such litigation, we assess the degree of probability and evaluate the reasonably possible losses that we could incur as a result of these matters. We accrue for any estimated loss when it is probable that a liability has been incurred and that the amount of the probable loss can be estimated. Based on the facts known to QIAGEN and after consultation with legal counsel, management believes that such litigation will not have a material adverse effect on QIAGEN's financial position or results of operations.

On September 9, 2016, the U.S. District Court for the Northern District of California, San Francisco Division, issued a decision in which the court granted a motion for a preliminary injunction against us as part of patent litigation filed by a competitor. The lawsuit alleges infringement of U.S. Patent 7,566,537 by our GeneReader NGS System. The latest decision comes as part of a long-standing intellectual property dispute with a competitor and complex litigation among several entities. These types of disagreements are common in the pharmaceutical and diagnostic industries, where new product launches can trigger legal actions by other parties to defend their positions. No meaningful revenue contributions from the GeneReader NGS System were included in our internal financial forecasts for 2016 due to the early launch stage of the system and because commercialization only began in December 2015. As a result of this court decision, which only applies to the U.S., and also in light of the forthcoming upgrade to the component under dispute that is not expected to be impacted by this decision, we neither expect a material financial impact from this decision on our financial outlook for full-year 2017 nor do we currently anticipate any material changes to our internal financial projections for 2017. A trial for this case is currently scheduled to begin in November 2017.

20. Share-Based Compensation

We adopted the QIAGEN N.V. Amended and Restated 2005 Stock Plan (the 2005 Plan) in 2005 and the QIAGEN N.V. 2014 Stock Plan (the 2014 Plan) in 2014. The 2005 Plan expired by its terms in April 2015 and no further awards will be granted under the 2005 Plan. The plans allow for the granting of stock rights and incentive stock options, as well as non-qualified options, stock grants and stock-based awards, generally with terms of up to 10 years, subject to earlier termination in certain situations. Generally, options vest over a three-year period. The vesting and exercisability of certain stock rights will be accelerated in the event of a Change of Control, as defined in the plans. To date, all option grants have been at the market value on the grant date or at a premium above the closing market price on the grant date. We issue Treasury Shares to satisfy option exercises and award releases and had approximately 17.9 million Common Shares reserved and available for issuance under the 2005 and 2014 Plans at December 31, 2016.

Revision of Previously Issued Financial Statements for Change in Attribution Method

In the fourth quarter of 2016, we made a change in accounting principle to move from a straight-line attribution method for expense recognition to an accelerated attribution method. As a company with multi-jurisdiction reporting requirements, we made this change to align our share-based compensation expense reporting under both U.S. GAAP and International Financial Reporting Standards (IFRS). This change is preferable because not only does it allow us to harmonize our share-based compensation expense across our reports, whether prepared under U.S. GAAP or IFRS, it provides better alignment of the cost recognition over the vesting periods. Therefore, we have revised our Consolidated Balance Sheet and Consolidated Statements of Income for the years as noted in the tables below. The change in attribution method reduced the amount of pre-forfeiture share-based compensation expense in the fourth quarter of 2016 by \$0.8 million, or \$0.5 million after tax. The cumulative effect of the change in accounting principle as of January 1, 2014 was a reduction to retained earnings of \$21.1 million, an increase in additional paid-in capital of \$29.1 million and an \$8.0 decrease in long-term deferred tax liabilities. This revision had no impact on our net cash provided by operating activities for the years ended December 31, 2015 and 2014.

The following tables summarize the selected line items from our consolidated financial statements illustrating the effect of these adjustments to the comparative years and related tax amounts in Note 16 *Income Taxes*.

As of December 31, 2015 (in thousands)

Consolidated Balance Sheet	As Reported	Change in Attribution Method	As Adjusted
Long-term deferred income taxes	\$ 75,726	\$ (6,116)	\$ 69,610
Additional paid-in capital	\$ 1,741,167	\$ 24,428	\$ 1,765,595
Retained earnings	\$ 1,227,509	\$ (18,312)	\$ 1,209,197

Year-Ended December 31, 2015 (in thousands, except per share data)

Consolidated Statements of income	As Reported	Change in Attribution Method	As Adjusted
Cost of sales	\$ 454,611	\$ (283)	\$ 454,328
Research and development	\$ 147,180	\$ (350)	\$ 146,830
Sales and marketing	\$ 360,962	\$ (1,364)	\$ 359,598
General and administrative, integration and other	\$ 103,874	\$ (1,808)	\$ 102,066
Income before income taxes	\$ 132,498	\$ 3,805	\$ 136,303
Income taxes	5,641	760	6,401
Net income	126,857	3,045	129,902
Net (loss) income attributable to noncontrolling interest	(246)	—	(246)
Net income attributable to the owners of QIAGEN N.V.	\$ 127,103	\$ 3,045	\$ 130,148
Basic net income per common share attributable to the owners of QIAGEN N.V.	\$ 0.54	\$ 0.02	\$ 0.56
Diluted net income per common share attributable to the owners of QIAGEN N.V.	\$ 0.54	\$ 0.01	\$ 0.55
Weighted-average common shares outstanding			
Basic	233,483	—	233,483
Diluted	237,158	1,489	238,647

Year-Ended December 31, 2014 (in thousands, except per share data)

Consolidated Statements of income	As Reported	Change in Attribution Method	As Adjusted
Cost of sales	\$ 479,839	\$ (269)	\$ 479,570
Research and development	\$ 163,627	\$ 39	\$ 163,666
Sales and marketing	\$ 376,873	\$ (732)	\$ 376,141
General and administrative, integration and other	\$ 126,550	\$ 87	\$ 126,637
Income before income taxes	\$ 118,514	\$ 875	\$ 119,389
Income taxes	1,312	1,144	2,456
Net income	117,202	(269)	116,933
Net (loss) income attributable to noncontrolling interest	568	—	568
Net income attributable to the owners of QIAGEN N.V.	\$ 116,634	\$ (269)	\$ 116,365
Basic net income per common share attributable to the owners of QIAGEN N.V.	\$ 0.50	\$ —	\$ 0.50
Diluted net income per common share attributable to the owners of QIAGEN N.V.	\$ 0.48	\$ —	\$ 0.48
Weighted-average common shares outstanding			
Basic	232,644	—	232,644
Diluted	241,538	1,268	242,806

As a result of these revisions, Note 16--Income Taxes has been revised accordingly from those previously issued with respect to deferred taxes related to share-based compensation.

Stock Options

We have not granted stock options since 2013. A summary of the status of employee stock options as of December 31, 2016 and changes during the year then ended is presented below:

All Employee Options	Number of Shares (in thousands)	Weighted Average Exercise Price	Weighted Average Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2016	1,821	\$ 19.37		
Exercised	(354)	\$ 17.66		
Forfeited	(3)	\$ 18.68		
Expired	(25)	\$ 16.21		
Outstanding at December 31, 2016	1,439	\$ 19.84	3.85	\$ 11,762
Vested at December 31, 2016	1,439	\$ 19.84	3.85	\$ 11,762
Vested and expected to vest at December 31, 2016	1,439	\$ 19.84	3.85	\$ 11,762

The total intrinsic value of options exercised during the years ended December 31, 2016, 2015 and 2014 was \$3.2 million, \$7.0 million and \$6.38 million, respectively. At December 31, 2016, there was no unrecognized share-based compensation expense related to employee stock option awards.

At December 31, 2016, 2015 and 2014, 1.4 million, 1.7 million and 2.1 million options were exercisable at a weighted average price of \$19.84, \$19.27 and \$18.10 per share, respectively. The options outstanding at December 31, 2016 expire in various years through 2023.

Stock Units

Stock units represent rights to receive Common Shares at a future date and include restricted stock units which are subject to time-vesting only and performance stock units which include performance conditions in addition to time-vesting. The final number of performance stock units earned is based on the performance achievement which for some grants can reach up to 120% of the granted shares. There is no exercise price and the fair market value at the time of the grant is recognized over the

requisite vesting period, generally 3 to 5 years, and in certain grants 10 years. The fair market value is determined based on the number of stock units granted and the market value of our shares on the grant date. Pre-vesting forfeitures were estimated to be approximately 6.5%. At December 31, 2016, there was \$76.5 million remaining in unrecognized compensation cost including estimated forfeitures related to these awards, which is expected to be recognized over a weighted average period of 2.45 years. The weighted average grant date fair value of stock units granted during the years ended December 31, 2016, 2015 and 2014 was \$23.81, \$24.91 and \$22.73, respectively. The total fair value of stock units that vested during the years ended December 31, 2016, 2015 and 2014 was \$27.4 million, \$28.7 million and \$34.1 million, respectively.

A summary of stock units as of December 31, 2016 and changes during the year are presented below:

Stock Units	Stock Units (in thousands)	Weighted Average Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at January 1, 2016	8,956		
Granted	2,942		
Vested	(1,200)		
Forfeited	(500)		
Outstanding at December 31, 2016	10,198	2.43	\$ 285,311
Vested and expected to vest at December 31, 2016	8,886	2.30	\$ 248,989

Compensation Expense

Share-based compensation expense before taxes for the years ended December 31, 2016, 2015 and 2014 totaled approximately \$28.3 million, \$23.8 million and \$44.3 million, respectively, as shown in the table below. The excess tax benefit realized for the tax deductions of the share-based payment arrangements totaled \$0.8 million, \$3.3 million and \$1.6 million, respectively, for the years ended December 31, 2016, 2015 and 2014.

Compensation Expense (in thousands)	2016	2015	2014
Cost of sales	\$ 2,553	\$ 2,177	\$ 2,809
Research and development	4,735	5,686	6,696
Sales and marketing	4,824	4,815	9,086
General and administrative	16,176	11,083	25,709
Share-based compensation expense	28,288	23,761	44,300
Less: income tax benefit	6,223	5,751	8,541
Net share-based compensation expense	\$ 22,065	\$ 18,010	\$ 35,759

Following the restructuring program discussed in Note 6, share-based compensation expense in 2016 includes the impact of \$2.0 million in forfeitures in connection with the restructuring terminations. Total share-based compensation expense in 2015 was lower compared to 2014 following a reassessment on stock units with performance criteria. No share-based compensation cost was capitalized in inventory in 2016, 2015 or 2014 as the amounts were not material.

21. Employee Benefits

We maintain various benefit plans, including defined contribution and defined benefit plans. Our U.S. defined contribution plan is qualified under Section 401(k) of the Internal Revenue Code, and covers substantially all U.S. employees. Participants may contribute a portion of their compensation not exceeding a limit set annually by the Internal Revenue Service. This plan includes a provision for us to match a portion of employee contributions. Total expense under the 401(k) plans, including the plans acquired via business acquisitions, was \$2.5 million, \$2.4 million and \$2.1 million for the years ended December 31, 2016, 2015 and 2014, respectively. We also have a defined contribution plan which covers certain executives. We make matching contributions up to an established maximum. Matching contributions made to the plan, and expensed, totaled approximately \$0.3 million in each year ended December 31, 2016, 2015 and 2014.

We have four defined benefit, non-contributory retirement or termination plans that cover certain employees in Germany, France, Japan and Italy. These defined benefit plans provide benefits to covered individuals satisfying certain age and service requirements. For certain plans, we calculate the vested benefits to which employees are entitled if they separate immediately. The benefits accrued on a pro-rata basis during the employees' employment period are based on the individuals' salaries, adjusted for inflation. The liability under the defined benefit plans was \$6.7 million at December 31, 2016 and \$6.6 million at

December 31, 2015, and is included as a component of other long-term liabilities on the accompanying consolidated balance sheets.

22. Related Party Transactions

From time to time, we have transactions with other companies in which we hold an interest all of which are individually and in the aggregate immaterial, as summarized in the table below.

(in thousands)	As of December 31,		For the years ended December 31,		
	2016	2015	2016	2015	2014
Net sales	—	—	\$ 1,360	\$ 418	\$ 1,567
Reimbursements against research and development costs	—	—	—	\$ 2,032	—
Accounts receivable	\$ 1,302	\$ 1,209	—	—	—
Loans receivable, including interest	\$ 13,067	\$ 7,472	—	—	—
Accounts payable	\$ 391	\$ 471	—	—	—
Accrued and other current liabilities	\$ 3,926	—	—	—	—
Other long-term liabilities	\$ 5,889	—	—	—	—

During 2015, we entered in a loan agreement for \$5.0 million bearing interest of 6% and due in January 2020 with a company in which we hold an ownership interest. In the 2016, we increased this loan by \$5.0 million resulting in a loan balance at December 31, 2016 of \$10.7 million including accrued interest. Additionally in 2015, we entered into €2.0 million (\$2.4 million as of December 31, 2016 including accrued interest), loan agreement, bearing interest of 7% and due in June 2019, with another company in which we hold an ownership interest. The loans were made for general business purposes and no amounts have been repaid. These loans are included in other long-term assets in the accompanying consolidated balance sheet as of December 31, 2016. Additionally during 2016, we entered into a short-term loan arrangement with another company in which we hold an ownership interest. In August 2016, we converted a \$0.6 million short-term loan into additional interest of the company which we account for on a cost-method as discussed in Note 10.

As discussed in Note 10, during 2016 we acquired a 19.0% interest in Hombrechtikon Systems Engineering AG (HSE) for a total obligation of \$9.8 million, which is payable over three years. As of December 31, 2016, \$3.9 million was included in accrued and other current liabilities and \$5.9 million was included in other long-term liabilities in the accompanying consolidated balance sheet. HSE is a variable interest entity and we are not the primary beneficiary, therefore HSE is not consolidated. Additionally during 2016, we entered into a short-term \$0.6 million loan arrangement with another company in which we hold an ownership interest. In August 2016, we converted this loan into additional interest of the company which we account for on a cost-method as discussed in Note 10.

We held 100% of the equity interest of QIAGEN Finance (Luxembourg) S.A. (QIAGEN Finance), which was established for the purpose of issuing convertible debt. QIAGEN Finance was a variable interest entity with no primary beneficiary, and thus was not consolidated and accordingly, the convertible debt was not included in the consolidated statements of QIAGEN N.V., though QIAGEN N.V. did report the full obligation of the debt through its liabilities to QIAGEN Finance. As discussed in Note 15, during 2015, we repaid the loan to QIAGEN Finance and repurchased the warrant agreement with QIAGEN Finance. Subsequent to these transactions, QIAGEN Finance was liquidated.

23. Subsequent Events

Acquisition

In January 2017, we acquired OmicSoft Corporation, a privately owned bioinformatics company, that markets a suite of tools that allow customers to analyze and visualize data sets and compare them to large, publicly available multi-omics data sets. The acquisition was not individually significant to the overall consolidated financial statements.

Synthetic Share Repurchase

In January 2017, QIAGEN completed a synthetic share repurchase that combined a direct capital repayment with a reverse stock split as discussed in Note 17 *Equity*.

QIAGEN N.V. AND SUBSIDIARIES
SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS
FOR THE YEARS ENDED DECEMBER 31, 2016, 2015 AND 2014

(in thousands)	Balance at Beginning of Year	Provision Charged to Expense	Write-Offs	Foreign Exchange and Other	Balance at End of Year
Year Ended December 31, 2014:					
Allowance for doubtful accounts	\$ 10,683	\$ 1,363	\$ (2,263)	\$ (936)	\$ 8,847
Year Ended December 31, 2015:					
Allowance for doubtful accounts	\$ 8,847	\$ 2,093	\$ (2,022)	\$ (1,663)	\$ 7,255
Year Ended December 31, 2016:					
Allowance for doubtful accounts	\$ 7,255	\$ 2,135	\$ (1,642)	\$ (134)	\$ 7,614

The undersigned:

Professor Martin van Olfen, civil law notary in Amsterdam, declares with respect to the articles of association (the "**Articles of Association**") of the limited liability company: **QIAGEN N.V.**, with corporate seat in Venlo, the Netherlands (the "**Company**") as follows:

- (i) the Articles of Association correspond with the document in the Dutch language which is attached to this declaration;
- (ii) the document in the English language attached to this declaration is an unofficial translation of the Articles of Association; if differences occur in the translation, the Dutch text will govern by law; and
- (iii) the Articles of Association were most recently amended by deed (the "**Deed**") executed on 24 January 2017 before Professor M. van Olfen, civil law notary in Amsterdam.

When issuing the statements included above under (i) and (iii) I, Professor M. van Olfen, notaris, based any observations entirely on the information stated in the extract from the Trade Register of the registration of the Company and on an official copy of the Deed.

Signed in Amsterdam on 24 January 2017.

**UNOFFICIAL TRANSLATION OF
THE ARTICLES OF ASSOCIATION**

of:

QIAGEN N.V.

with corporate seat in Venlo

dated 24 January 2017

Name, Seat.

Article 1.

- 1.1. The name of the company is: **QIAGEN N.V.**
- 1.2. The company is established at Venlo, the Netherlands.

Objects.

Article 2.

The objects of the company are:

- a. to incorporate, acquire, participate in, finance, manage and to have any other interest in other companies or enterprises of any nature;
- b. to perform activities in the field of the biotechnology industry;
- c. to raise funds by way of securities, bank loans, bond issues, notes and to borrow in any other way, to lend, to provide guarantees, including guarantees for debts of other persons, to assume commitments in the name of any enterprises with which it may be associated within a group of companies,

and to perform all acts which in the broadest sense of the term, may be connected with or may be conducive to the foregoing.

Capital.

Article 3.

- 3.1. The authorised capital of the company amounts to nine million euro (EUR 9,000,000), divided into four hundred and ten million (410,000,000) ordinary shares of one eurocent (EUR 0.01) each, forty million (40,000,000) financing preference shares of one eurocent (EUR 0.01) each and four hundred and fifty million (450,000,000) preference shares of one eurocent (EUR 0.01) each.
- 3.2. Where in these articles of association reference is made to shares and shareholders it shall include respectively the ordinary shares, the financing preference shares and the preference shares and the holders of ordinary shares, the holders of financing preference shares and the holders of preference shares unless the contrary is expressly stated.

Issuance of shares. Pre-emptive rights.

Article 4.

- 4.1. The supervisory board shall have the power to resolve upon the issue of shares and to determine the price and further terms and conditions of such share issue, if and in so far as the supervisory board has been designated by the

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general meeting of shareholders, hereinafter referred to as: the general meeting, as the authorized "orgaan" (corporate body) for this purpose. A designation as referred to above shall only be valid for a specific period of no more than five years and may from time to time be extended with a period of no more than five years.

- 4.2. If a designation as referred to in paragraph 1 is not in force, the general meeting of shareholders shall have power to resolve upon the issue of shares, but only upon the proposal of and for a price and against such further terms and conditions to be determined by the supervisory board.
- 4.3. In the event of an issue of ordinary shares, the shareholders shall have a pre-emptive right in proportion to the number of ordinary shares which they own. Holders of preference shares and holders of financing preference shares shall have no pre-emptive right in respect of shares to be issued. Holders of ordinary shares shall have no pre-emptive right in respect of preference shares or financing preference shares to be issued. In respect of the issue of shares there shall be no pre-emptive right to shares issued against a contribution other than in cash or issued to employees of the company or of a group company. The supervisory board shall have the power to limit or exclude any pre-emptive rights to which shareholders shall be entitled, but only if and in so far as it has been granted such authority by the general meeting, and provided further that the supervisory board can only exercise such authority if at that time it also has authority to resolve upon the issue of shares. The provisions in the second sentence of paragraph 1 of this article shall equally apply.
- 4.4. If a designation as referred to in paragraph 3 is not in force, the general meeting shall have power to limit or exclude any pre-emptive rights to which shareholders shall be entitled, but only upon the proposal of the supervisory board.
- 4.5. A resolution by the general meeting in accordance with paragraph 3 or 4 of this article requires in order to be validly adopted a majority of at least two-thirds of the votes cast in a meeting of shareholders if less than fifty per cent (50%) of the issued share capital is present or represented.
- 4.6. A previous or simultaneous approving resolution of each group of holders of shares of the same class whose rights are prejudiced by such issue shall be required for the validity of a resolution of the general meeting to issue shares or to designate the supervisory board as referred to above.
- 4.7. This article 4 shall equally apply to the granting of rights to subscribe for shares, but shall not apply to the issue of shares to a person who exercises a previously acquired right to subscribe for shares, in which case no pre-emptive right exists.
- 4.8. A resolution to issue preference shares shall only be valid in the event that:
- 1) in the opinion of the supervisory board, a Person, who is not a Founding Shareholder of the company as defined below, shall, alone or pursuant to a mutual arrangement for co-operation jointly with one or more other Persons, directly or indirectly have acquired or given notice of an intent to acquire (beneficial) ownership of a nominal amount of ordinary shares or financing preference shares, which in aggregate equals twenty percent (20%) or more of the share capital of the company then outstanding in the form of ordinary shares and of financing preference shares; or
 - 2) the supervisory board shall declare any Person to be an Adverse Person, upon a determination that such Person, alone or together with its Affiliates and Associates, has become the (beneficial) owner of a nominal amount of ordinary shares or financing preference shares which the supervisory board determines to be substantial (which amount shall in no event be less than ten per cent (10%) of the shares then outstanding) and a

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determination by the supervisory board after reasonable inquiry and investigation, which may include a review of the public record regarding such Person and any information the supervisory board may request from such Person and consultation with such persons as such board members shall deem appropriate, that (a) such (beneficial) Ownership by such Person is intended to cause the company to repurchase the shares (beneficially) owned by such Person or to cause pressure on the company to take action or enter into a transaction or series of transactions intended to provide such Person with short-term financial gain under circumstances where such members of the supervisory board determine that the best long term interest of the company and its shareholders would not be served by taking such action or entering into such transaction or series of transactions at that time or (b) such (beneficial) ownership by such Person is causing or is reasonably likely to cause a material adverse impact (including but not limited to, impairment of relationships with customers or impairment of the company's ability to maintain its competitive position) on the business prospects of the company.

The holding of shares, or the acquisition of shares for the purposes of the preceding sentence includes the having of a right of usufruct or a right of pledge, or the acquisition of a right of usufruct or a right of pledge, in or on shares, insofar as in addition to this the voting right vests in the holder of a usufruct or pledge.

A Person shall be deemed the ("beneficial) owner" of and shall be deemed to ("beneficially) own" any shares:

- (i) which such Person or any of such Person's Affiliates or Associates (beneficially) owns, directly or indirectly, where a (beneficial) owner of a share includes any Person who, directly or indirectly, has or shares (a) voting power which includes the power to vote, or to direct the voting of such shares; and/or (b) investment power which includes the power to dispose, or to direct the disposition of, such shares;
- (ii) of which such Person or any of such Person's Affiliates or Associates, directly or indirectly, has the right to acquire (beneficial) ownership pursuant to any agreement, arrangement or understanding, or upon the exercise of conversion rights, exchange rights, rights, warrants or options, or otherwise; or
- (iii) which are (beneficially) owned, directly or indirectly, by any other Person (or any Affiliate or Associate of such other Person) with which such Person or any of such Person's Affiliates or Associates has any agreement, arrangement or understanding for the purpose of acquiring, holding, voting or disposing of any securities of the company.

Notwithstanding anything in this provision to the contrary, the phrase "then outstanding," when used with reference to a Person's (beneficial) ownership of securities of the company, shall mean the total number of shares of the company then issued and outstanding together with the number of such shares not then actually issued and outstanding which such Person would be deemed to own (beneficially) hereunder. As used above, the term "Associate" of a specified Person means a Person that directly or indirectly controls or is controlled by, or is under common control with, the Person specified and the term "Affiliate" means (i) any corporation or organization of which such Person is an officer or partner or is, directly or indirectly, the (beneficial) owner of ten percent (10%) or more of any class of equity securities, (ii) any trust or other estate in which such Person has a substantial beneficial interest or as to which such Person serves as trustee or in a similar fiduciary capacity, or (iii) any relative or spouse of such Person, or any relative of such spouse, who has the same home as such Person.

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"Person", for the purposes of this paragraph, shall mean any natural Person, company, government or political subdivision, agency or instrumentality of a government, and a "Founding Shareholder", for the purposes of this paragraph, shall include those persons who acquired shares pursuant to the deed of incorporation of the company.

- 4.9. A resolution to grant a right to subscribe for preference shares shall only be valid if the exercise of such right is subject to an event as described in paragraph 8.
- 4.10. All notifications to shareholders must be made in accordance with the provisions relating to the convening of a general meeting as set out in article 30, paragraph 2.

Issuance price. Payment of shares.

Article 5.

- 5.1. Without prejudice to what has been provided in section 2:80.2 Civil Code, shares shall at no time be issued below par. Ordinary shares and financing preference shares must be fully paid up upon issue. Preference shares may be issued against partial payment, with the proviso that the obligatory payable part of the nominal amount (call) must be equal in respect of each preference share - regardless of the time of issue of such preference share - and that at least one-fourth part of the nominal amount must be paid upon subscription for the share.
- 5.2. The managing board may with the approval of the supervisory board resolve on which day and up to which amount a further call must be paid on preference shares which have not yet been paid up in full. The managing board shall give immediate notice of such resolution to the holders of preference shares; the period intervening between that notice and the day, on which the call must have been paid, must be at least thirty days.
- 5.3. Payment must be made in cash to the extent that no other contribution has been agreed upon. If the company so agrees, payment in cash can be made in a currency other than Dutch currency. In the event of payment in a foreign currency the obligation to pay is fulfilled to the extent of the sum for which the payment is freely convertible into Dutch currency. The decisive factor is the rate of exchange on the day of payment, or as the case may be after application of the next sentence, on the day mentioned therein. The company can require payment at the rate of exchange on a certain day within two months prior to the ultimate day on which payment must be made, provided the shares or depositary receipts issued therefor shall immediately upon their issue be admitted to a listing at a stock exchange outside of the Netherlands.

Acquisition by the company of its shares.

Article 6.

Subject to authorisation by the general meeting and with due observance of the other provisions of Section 2:98 Civil Code, the managing board may cause the company to acquire for consideration fully paid up shares in its own share capital.

Reduction of capital. Cancellation of shares.

Article 7.

With due observance of the provisions of Section 2:99 Civil Code, upon the proposal of the supervisory board, the general meeting may resolve to reduce the issued capital by cancelling shares or by reducing the nominal amount of the shares by an amendment of the company's articles of association. The shares referred to in such resolution must be designated therein and provisions for the implementation of the resolution must be made therein.

Cancellation with repayment of shares or partial repayment on shares or release from the obligation to pay up as referred to in Section 2:99 Civil Code may also be made or be given exclusively with respect to ordinary shares or exclusively with respect to preference shares or exclusively with respect to financing preference shares.

A partial repayment or release must be made pro rata to all shares concerned. The pro rata requirement may be waived with the consent of all the shareholders concerned.

Shares. Share certificates.

Article 8.

- 8.1. Shares shall be issued in registered form only and shall be numbered consecutively, the ordinary shares from 1 onwards, the preference shares from P1 onwards and the financing preference shares from F1 onwards.
- 8.2. No share certificates shall be issued for shares.

Share certificates.

Article 9.

Deleted.

Share register.

Article 10.

- 10.1. Notwithstanding the applicable statutory provisions in respect of registered shares, a share register shall be kept by or on behalf of the company, which register shall be regularly updated and, at the discretion of the managing board, may, in whole or in part, be kept in more than one copy and at more than one address.
- Part of the register may be kept abroad in order to comply with applicable foreign statutory provisions or applicable provisions set by a foreign stock exchange.
- 10.2. Each shareholder's name, his address and such further information as required by law and such further information as the managing board deems appropriate, whether at the request of a shareholder or not, shall be recorded in the register.
- 10.3. The form and the contents of the register shall be determined by the managing board with due observance of the provisions of paragraphs 1 and 2 of this article.
- 10.4. Upon his request a shareholder shall be provided with written evidence of the contents of the register with regard to the shares registered in his name free of charge, and the statement so issued may be validly signed on behalf of the company by a person to be designated for that purpose by the managing board.
- 10.5. The provisions of paragraphs 1 up to and including 4 of this article shall equally apply to persons who hold a right of usufruct or a right of pledge on one or more shares.
- 10.6. The managing board and supervisory board shall have power and authority to permit inspection of the register and to provide information recorded therein as well as any other information regarding the direct or indirect shareholding of a shareholder of which the company has been notified by that shareholder to the authorities entrusted with the supervision and/or implementation of the trading of securities on a foreign stock exchange on behalf of the company and its shareholders, in order to comply with applicable foreign statutory provisions or applicable provisions set by such foreign stock exchange, if and to the extent such requirements apply to the company and its shareholders as a result of the listing of shares in the share capital of the company on such stock exchange or the registration of such shares or the registration of an offering of such shares under applicable foreign securities laws.

- 10.7. Any shareholder shall, upon written request, have the right during the usual hours for business to inspect the company's share register and a list of its shareholders and their addresses and shareholdings, and to make copies or extracts therefrom. The request shall be directed to the managing directors of the company at its registered office in the Netherlands or at its principal place of business.

Fractional shares.

Article 11.

- 11.1. Each ordinary share consists of twenty-seven (27) fractional shares. Each fractional share represents one/twenty-seventh ($1/27^e$) portion of the value of an ordinary share.
- 11.2. Every fractional share shall be in registered form.
- 11.3. Without prejudice to the other provisions of this article 11, the provisions of Title 4 of Book 2 of the Dutch Civil Code on shares and shareholders shall apply accordingly to fractional shares and holders of fractional shares, to the extent not stipulated otherwise in those provisions.
- 11.4. The provisions of these articles of association with respect to shares and shareholders shall apply accordingly to fractional shares and holders of fractional shares, to the extent not stipulated otherwise in paragraphs 5 and 6 of this article 11.
- 11.5. A holder of one or more fractional shares may exercise the meeting and voting rights attaching to an ordinary share together with one or more other holders of one or more fractional shares to the extent the total number of fractional shares held by such holders of fractional shares equals twenty-seven (27) or a multiple thereof. These rights shall be exercised either by one of them who has been authorized to that effect by the others in writing, or by a proxy authorized to that effect by those holders of fractional shares in writing.
- 11.6. Every holder of a fractional share is entitled to one/twenty-seventh ($1/27^e$) part of the (interim) dividend and any other distribution to which the holder of one (1) ordinary share is entitled.
- 11.7. In the event the holder of one or more fractional shares acquires such number of fractional shares that the total number of fractional shares held by him at least equals twenty-seven (27) then each time twenty-seven (27) fractional shares held by him shall by operation of law be consolidated into one (1) ordinary share; this shall be recorded in the shareholders' register.
- 11.8. One or more shares held by the company in its own share capital, can be divided into twenty-seven (27) fractional shares upon a resolution by the managing board. Fractional shares created in this way, will not be consolidated in accordance with article 11.7 as long as those fractional shares are held by the company, unless the managing board resolves to consolidate in accordance with article 11.7.

Transfer of shares.

Article 12.

- 12.1. The transfer of title to shares or the transfer of title to or a termination of a right of usufruct on shares or the creation or release of a right of usufruct or of a right of pledge on shares shall be effected by way of a written instrument of transfer, and in accordance with the (further) provisions set forth in section 2:86, or, as the case may be, section 2:86c, Civil Code.
- 12.2. The provisions of paragraph 1 of this article shall equally apply to (i) the allotment of shares in the event of a judicial partition of any community of property, (ii) the transfer of a registered share as a consequence of foreclosure of a right of pledge and (iii) the creation of limited rights in rem on a registered share.

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- 12.3. Any requests made pursuant to and in accordance with the provisions of article 10 and this article 12 may be sent to the company at such address(es) as to be determined by the managing board, at all times including an address in the municipality or city where a stock exchange on which shares in the share capital of the company are listed has its principal place of business.
- 12.4. The company is authorized to charge such amounts as may be determined by the managing board provided they do not exceed cost price, to persons who have made a request pursuant to and in accordance with the provisions of article 10 and this article 12.

Restriction on the transfer of preference shares.

Article 13.

- 13.1. Each transfer of preference shares shall require the approval of the supervisory board. The approval shall be applied for in writing, stating the name and address of the intended transferee, as well as the price or other consideration which the intended transferee is willing to pay or give.
- 13.2. If the approval is refused, the supervisory board shall at the same time designate one or more prospective purchasers who are willing and able to purchase all the shares to which the request for approval relates, against cash payment at a price to be fixed mutually by the transferor and the supervisory board within two months following such designation.
- 13.3. If, within three months of receipt by the company of the request to approve the intended transfer, the transferor has not received a written notice to that end from the company or due written refusal to approve the transfer was not simultaneously accompanied by the designation of one or more prospective purchasers as referred to in paragraph 2, the approval to transfer shall be deemed granted following expiry of said period or upon receipt of the notice of refusal.
- 13.4. If the transferor and the supervisory board have failed to reach agreement on the price meant in paragraph 2 within two months of the refusal of the approval, such price shall be fixed by an expert, to be designated by the transferor and the managing board by mutual agreement or, failing agreement about that within three months following the refusal of the approval, by the President of the Chamber of Commerce and Industry in the district in which the Company has its corporate seat according to its articles of association, at the request of the party who is first to take action.
- 13.5. The transferor shall have the right to abandon the transfer, provided he so notifies the managing board in writing within one month of his being informed of both the name of the designated prospective purchaser(s) and the fixed price.
- 13.6. In the event of approval of the transfer in the sense of paragraph 1 or paragraph 3 the transferor shall be entitled to transfer all shares, to which his request relates, to the purchaser mentioned in the request at the price or consideration mentioned by him, referred to in paragraph 1 of this article.
- 13.7. The costs connected with the transfer for the Company may be charged to the new transferee.

Usufructuaries. Pledges. Holders of depositary receipts.

Article 14.

- 14.1. The usufructuary, who in conformity with the provisions of section 2:88, Civil Code has no right to vote, and the pledgee who in conformity with the provisions of section 2:89, Civil Code has no right to vote, shall not be entitled to the rights which by law have been conferred on holders of depositary receipts for shares issued with the cooperation of the company.
- 14.2. Where in these articles of association persons are mentioned who are entitled to attend meetings of shareholders, this shall include the holders of depositary receipts for shares issued with the cooperation of the company, and persons

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who in pursuance of section 2:88.4 or section 2:89.4, Civil Code have the rights that by law have been conferred on holders of depositary receipts for shares issued with the cooperation of the company.

Managing board.

Article 15.

- 15.1. The company shall be managed by a managing board consisting of one or more managing directors under the supervision of the supervisory board. The number of members of the managing board shall be determined by the supervisory board.
- 15.2. Managing directors shall be appointed by the general meeting upon the joint meeting of the supervisory board and the managing board - hereinafter referred to as: the "**Joint Meeting**" - having made a binding nomination for each vacancy. The managing board shall invite the Joint Meeting to make a nomination within sixty days, such that for each appointment a choice can be made from at least two persons. However, the general meeting may at all times overrule the binding nature of such a nomination by a resolution adopted by at least a two thirds majority of the votes cast, if such majority represents more than half the issued share capital. A second general meeting as referred to in article 2:120, paragraph 3 Civil Code may not be convened.
- The nomination shall be included in the notice of the general meeting at which the appointment shall be considered. If a nomination has not been made or has not been made in due time, this shall be stated in the notice and the general meeting shall make such appointment at its discretion. The managing directors appointed by the general meeting shall be appointed for the period commencing on the date following the annual general meeting which must be held by virtue of section 2:108.2, Civil Code up to and including the date of that meeting held in the following financial year.
- 15.3. With due observance of these articles of association, the supervisory board may adopt a "directiereglement" (rules governing the internal organisation, hereinafter the "management rules") and the supervisory board shall have authority to amend the management rules from time to time.
- Furthermore, the supervisory board may divide the duties among the managing directors, whether or not by way of a provision to that effect in the management rules. The management rules shall include directions to the managing board concerning the general financial, economic, personnel and social policy of the company, to be taken into consideration by the managing board in the performance of its duties.
- 15.4. The company has a policy in the area of remuneration of the managing board. The policy will be adopted by the general meeting upon a proposal of the supervisory board.
- The remuneration of members of the managing board will, with due observance of the policy as referred to in the preceding sentence, be determined by the supervisory board.

Suspension or dismissal of managing directors.

Article 16.

- 16.1. The general meeting shall at all times be entitled to suspend or dismiss a managing director. The general meeting may only adopt a resolution to suspend or dismiss a managing director by at least a two thirds majority of the votes cast, if such majority represents more than half of the issued share capital, unless the proposal was made by the Joint Meeting in which case a simple majority is sufficient.
- A second general meeting as referred to in Article 2:120, paragraph 3 Civil Code may not be convened.
- 16.2. The supervisory board shall also at all times be entitled to suspend (but not to dismiss) a managing director. Within three months after a suspension of a managing director has taken effect, a general meeting of shareholders shall be

held, in which meeting a resolution must be adopted to either terminate or extend the suspension for a maximum period of another three months. If neither such resolution is adopted nor the general meeting of shareholders has resolved to dismiss the managing director, the suspension shall terminate after the period of suspension has expired. The managing director shall be given the opportunity to account for his actions at that meeting.

Representation.

Article 17.

- 17.1. The entire managing board as well as each managing director acting individually may represent the company and bind it vis-a-vis third parties.
- 17.2. The managing board may grant special and general powers of attorney to persons, whether or not such persons are employed by the company, authorizing them to represent the company and bind it vis-a-vis third parties. The scope and limits of such powers of attorney shall be determined by the managing board. The managing board may in addition grant to such persons such titles as it deems appropriate.
- The powers of the managing board in this paragraph 2 shall be subject to the approval of the supervisory board to be specified in a resolution adopted pursuant to Article 19, paragraph 1.
- 17.3. The managing board shall have power to enter into and perform agreements and all "rechtshandelingen" (legal acts) contemplated thereby as specified in section 2:94.1, Civil Code in so far as such power is not expressly excluded or limited by any provision of these articles or by any resolution of the supervisory board.

Chairman of the managing board. Resolutions of the managing board.

Article 18.

- 18.1. The supervisory board shall appoint one of the managing directors as chairman of the managing board, who shall have the title of Chief Executive Officer.
- 18.2. Resolutions of the managing board shall be validly adopted, if adopted by simple majority of votes, at least one of whom so voting in favour of the proposal must be the chairman. Each managing director has the right to cast one vote. In case of absence a managing director may issue a proxy, however, only to another managing director.
- 18.3. The managing board may adopt resolutions without holding a meeting, provided such resolutions are adopted in writing or by legible and reproducible electronic communications and no managing director has objected to this method of adoption of a resolution.
- 18.4. A certificate signed by a managing director confirming that the managing board has adopted a particular resolution, shall constitute evidence of such resolution vis-a-vis third parties.
- 18.5. The management rules shall include provisions on the manner of convening board meetings and the internal procedure at such meetings. These meetings may be held by telephone conference communications, as well as by video communications, provided all participating managing directors can hear each other simultaneously.

Mandatory prior approval for management action.

Article 19.

- 19.1. Without prejudice to any other applicable provisions of these articles of association, the managing board shall require the prior approval of the supervisory board for any action specified from time to time by a resolution to that effect adopted by the supervisory board, of which the managing board has been informed in writing.

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- 19.2. Without prejudice to any other applicable provisions of these articles of association, the managing board shall require the approval of the general meeting of shareholders if required by law and the provisions of these articles of association.

Prevented from acting.

Article 20.

In case a managing director is "belet of ontstent" (prevented from acting), the remaining managing directors or managing director shall temporarily be responsible for the entire management. In case all managing directors are, or the only managing director is prevented from acting, one or more persons appointed by the supervisory board for this purpose from time to time shall be temporarily responsible for the management.

Supervisory board.

Article 21.

- 21.1. The supervisory board shall be responsible for supervising the policy pursued by the managing board and the general course of affairs of the company and the business enterprise which it operates. The supervisory board shall assist the managing board with advice relating to the general policy aspects connected with the activities of the company. In fulfilling their duties the supervisory directors shall serve the interests of the company and the business enterprise which it operates.
- 21.2. The managing board shall provide the supervisory board in good time with all relevant information as well as with all other information as the supervisory board may request, in connection with the exercise of its duties.
- 21.3. The general meeting shall determine the compensation of the members of the supervisory board, upon the (non-binding) recommendation by the compensation committee. Expenses incurred by the supervisory directors shall be reimbursed.

Number of supervisory directors. Appointment.

Article 22.

- 22.1. The supervisory board shall consist of such number of members as the Joint Meeting may from time to time determine, with a minimum of three members. Notwithstanding the provisions of paragraph 2 of this article the supervisory directors shall be appointed by the general meeting upon the Joint Meeting having made a binding nomination for each vacancy. Article 15, paragraph 2 applies equally. The supervisory directors appointed by the general meeting shall be appointed for the period commencing on the date following the annual general meeting which must be held by virtue of section 2:108.2, Civil Code up to and including the date of that meeting held in the following financial year.
- 22.2. If during a financial year a vacancy occurs in the supervisory board, the supervisory board may appoint a supervisory director who will cease to hold office at the next following annual general meeting as referred to in the previous paragraph. The supervisory board may in such manner appoint supervisory directors up to a maximum of one third (1/3) of the number of supervisory directors as determined in accordance with paragraph 1 of this article.
- 22.3. The supervisory board shall appoint one of its members as its chairman.
- 22.4. Whenever a supervisory director must be appointed by the general meeting the information referred to in section 2:142.3, Civil Code shall be made available to the shareholders for their prior inspection.

Organisation of the supervisory board.

Article 23.

- 23.1. With due observance of these articles of association, the supervisory board may adopt a "commissarissen reglement" (rules governing the internal organisation of the supervisory board, hereinafter the "supervision rules") and it may further establish such committees as it shall deem appropriate, provided that the powers and authority of such committees are set forth in the supervision rules.
- 23.2. The supervisory board may decide that one or more of its members shall have access to all premises of the company and that they shall be authorized to examine all books, correspondence and other records and to be fully informed of all actions which have taken place.
- 23.3. At the expense of the company, the supervisory board may obtain such advice from experts as the supervisory board deems desirable for the proper fulfilment of its duties.
- 23.4. If there is only one supervisory director in office, such supervisory director shall have all rights and obligations granted to and imposed on the supervisory board and the chairman of the supervisory board by law and by these articles of association.

Suspension or dismissal of supervisory directors.

Article 24.

- 24.1. The general meeting shall at all times be entitled to suspend or dismiss a supervisory director. Article 16, paragraph 1, second and third sentence applies equally.
- 24.2. Within three months after a suspension of a supervisory director has taken effect, a general meeting shall be held, in which meeting a resolution must be adopted to either terminate or extend the suspension for a maximum period of another three months. If neither such resolution is adopted nor the general meeting of shareholders has resolved to dismiss the supervisory director, the suspension shall terminate after the period of suspension has expired. The supervisory director shall be given the opportunity to account for his actions at that meeting.

Resolutions by the supervisory board.

Article 25.

- 25.1. Resolutions of the supervisory board shall be validly adopted, if adopted by simple majority of votes in a meeting at which the majority of the supervisory directors is present or represented. Each supervisory director has the right to cast one vote. In case of absence, a supervisory director may issue a proxy, however, only to another supervisory director. The supervisory board may also adopt resolutions without holding a meeting, provided such resolutions are adopted in writing or by legible and reproducible electronic communications and no supervisory director has objected to this method of adoption of a resolution.
- 25.2. A certificate signed by a supervisory director confirming that the supervisory board has adopted a particular resolution, shall constitute evidence of such resolution vis-a-vis third parties.
- 25.3. The managing directors shall attend meetings of the supervisory board at the latter's request.
- 25.4. The supervisory board shall meet whenever two or more of its members or the managing board so requests. Meetings of the supervisory board shall be convened by the chairman of the supervisory board, either at the request of two or more supervisory directors or at the request of the managing board, or by the supervisory directors requesting the meeting to be held. If the chairman fails to convene a meeting so that it can be held within four weeks of the receipt of the request, the supervisory board members making the request are entitled to convene the meeting.

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- 25.5. The supervisory rules shall include provisions on the manner of convening board meetings and the internal procedure at such meetings. These meetings may be held by telephone conference communications, as well as by video communications, provided all participating supervisory directors can hear each other simultaneously.

Joint Meeting. Resolutions of the Joint Meeting.

Article 26.

- 26.1. The Joint Meeting as referred to in these articles of association consists of the members of the supervisory board and the members of the managing board. The sole responsibility of the Joint Meeting shall be to make a binding nomination for each vacancy in the managing board and the supervisory board and the actions as referred to in article 16, paragraph 1 and article 22, paragraph 1.
- 26.2. The chairman of the supervisory board is the chairman of the Joint Meeting. The Joint Meeting shall appoint one of its members as secretary.
- 26.3. The Joint Meeting may only adopt resolutions if the majority of the members of the supervisory board and the majority of the members of the managing board are present or represented in such meeting. Resolutions of the Joint Meeting shall be validly adopted, if adopted by simple majority of votes. Each member of the Joint Meeting has the right to cast one vote. In case of absence a member of the Joint Meeting may issue a proxy, however, only to another member of the Joint Meeting.
- 26.4. The Joint Meeting may adopt its resolutions without holding a meeting, provided that such resolutions are adopted in writing or by legible and reproducible electronic communications and no member of the Joint Meeting has objected to this method of adoption of a resolution.
- 26.5. A certificate signed by the chairman of the Joint Meeting confirming that the Joint Meeting has adopted a particular resolution, shall constitute evidence of such resolution vis-a-vis third parties.
- 26.6. The Joint Meeting shall adopt Joint Meeting rules. The Joint Meeting rules shall include provisions on the manner of convening meetings and the internal procedure at such meetings. These meetings may be held by telephone conference communications, as well as by video communications, provided all participating members can hear each other simultaneously.

Indemnification.

Article 27.

- 27.1. The company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the company) by reason of the fact that he is or was a supervisory director, managing director, officer or agent of the company, or was serving at the request of the company as a supervisory director, managing director, officer or agent of another company, a partnership, joint venture, trust or other enterprise, against all expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by him in connection with such action, suit or proceeding if he acted in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful or out of his mandate. The termination of any action, suit or proceeding by a judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and not in a manner which he reasonably could believe to be in or not opposed to the best interests of the company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful.

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- 27.2. The company shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or proceeding by or in the right of the company to procure a judgment in its favor, by reason of the fact that he is or was a supervisory director, managing director, officer or agent of the company, or is or was serving at the request of the company as a supervisory director, managing director, officer or agent of another company, a partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) actually and reasonably incurred by him in connection with the defense or settlement of such action or proceeding if he acted in good faith and in a manner he reasonably could believe to be in or not opposed to the best interests of the company and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable for gross negligence or wilful misconduct in the performance of his duty to the company, unless and only to the extent that the court in which such action or proceeding was brought or any other court having appropriate jurisdiction shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnification against such expenses which the court in which such action or proceeding was brought or such other court having appropriate jurisdiction shall deem proper.
- 27.3. To the extent that a supervisory director, managing director, officer or agent of the company has been successful on the merits or otherwise in defense of any action, suit or proceeding, referred to in paragraphs 1 and 2, or in defense of any claim, issue or matter therein, he shall be indemnified against expenses (including attorney's fees) actually and reasonable incurred by him in connection therewith.
- 27.4. Any indemnification by the company referred to in paragraphs 1 and 2 shall (unless ordered by a court) only be made upon a determination that indemnification of the supervisory director, managing director, officer or agent is proper in the circumstances because he had met the applicable standard of conduct set forth in paragraphs 1 and 2. Such determination shall be made:
- (a) either by the supervisory board by a majority vote in a meeting consisting of supervisory directors who were not parties to such action, suit or proceeding; or
 - (b) if the majority referred to under (a) adopts a resolution to that effect, by independent legal counsel in a written opinion; or
 - (c) by the general meeting of shareholders.
- 27.5. Expenses incurred in defending a civil or criminal action, suit or proceeding may be paid by the company in advance of the final disposition of such action, suit or proceeding upon a resolution of the supervisory board with respect to the specific case upon receipt of an undertaking by or on behalf of the supervisory director, managing director, officer or agent to repay such amount if it shall ultimately be determined that he is not entitled to be indemnified by the company as authorized in this article.
- 27.6. The indemnification provided for by this article shall not be deemed exclusive of any other right to which a person seeking indemnification may be entitled under any by-laws, agreement, resolution of the general meeting of shareholders or of the disinterested supervisory directors or otherwise, both as to actions in his official capacity and as to actions in another capacity while holding such position, and shall continue as to a person who has ceased to be a supervisory director, managing director, officer or agent and shall also inure to the benefit of the heirs, executors and administrators of such a person.

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- 27.7. The company shall have the power to purchase and maintain insurance on behalf of any person who is or was a supervisory director, managing director, officer or agent of the company, or is or was serving at the request of the company as a supervisory director, managing director, officer, employee or agent of another company, a partnership, joint venture, trust or other enterprise, against any liability asserted against him and incurred by him in any such capacity or arising out of his capacity as such, whether or not the company would have the power to indemnify him against such liability under the provisions of this article.
- 27.8. Whenever in this article reference is made to the company, this shall include, in addition to the resulting or surviving company also any constituent company (including any constituent company of a constituent company) absorbed in a consolidation or merger which, if its separate existence had continued, would have had the power to indemnify its supervisory directors, managing directors, officers and agents, so that any person who is or was a supervisory director, managing director, officer or agent of such constituent company, or is or was serving at the request of such constituent company as a supervisory director, managing director, officer or agent of another company, a partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this article with respect to the resulting or surviving company as he would have with respect to such constituent company if its separate existence had continued.

General meeting of shareholders.

Annual general meeting of shareholders.

Article 28.

- 28.1. The annual general meeting shall be held within six months after the close of the financial year.
- 28.2. At this general meeting the following subjects shall be considered:
- a. the written annual report prepared by the managing board on the course of business of the company and the conduct of its affairs during the past financial year, and the report of the supervisory board on the annual accounts;
 - b. the adoption of the annual accounts;
 - c. the filling of any vacancies in the managing board and the supervisory board;
 - d. the proposals placed on the agenda by the managing board or by the supervisory board, together with proposals made by shareholders in accordance with paragraph 2 of Article 31.
- 28.3. If the agenda of a general meeting includes the granting of discharge to the members of the managing board and the supervisory board with respect to the performance of their duties in the respective financial year, the item of discharge will be put on the agenda as a separate item for the managing board and the supervisory board, respectively.

Extraordinary general meetings.

Article 29.

- 29.1. Extraordinary general meetings shall be held as often as deemed necessary by the managing board and/or the supervisory board and shall be held if one or more shareholders and other persons entitled to attend such meetings jointly representing at least forty per cent (40%) of the issued share capital make a written request to that effect to the managing board or supervisory board, specifying in detail the business to be considered.
- 29.2. If the managing board or the supervisory board fail to comply with a request referred to in paragraph 1 of this article in such manner that the general meeting can be held within twelve weeks after the request, the persons who have made the request may convene the meeting themselves.

Place and notice of the general meetings.

Article 30.

- 30.1. General meetings shall be held at Amsterdam, Haarlemmermeer (Schiphol Airport), Rotterdam, Arnhem, Maastricht, Venlo or The Hague. The notice convening the meeting shall inform the shareholders and other persons entitled to attend the general meeting accordingly.
- 30.2. The notice convening a general meeting shall be given in such manner as shall be authorized by law including but not limited to an announcement published by electronic means.
- 30.3. The notice convening a general meeting shall be sent by either the managing board, the supervisory board or the persons who according to the law or these articles of association are entitled thereto.

Notice period. Agenda.

Article 31.

- 31.1. The notice convening a general meeting shall be given with due observance of the statutory notice period. The notice shall contain the agenda and other meeting materials as required by applicable law or these articles of association.
- 31.2. The agenda shall contain such subjects to be considered at the meeting as the person(s) convening the meeting or requesting the meeting pursuant to article 29, paragraph 1 shall decide.
- Furthermore an item, which is requested in writing by one or more shareholders, who are entitled thereto pursuant to the law, shall be included in the agenda and announced in the same manner, provided such request is made in writing or by legible and reproducible electronic communications in the form of a reasoned request or a proposal for a resolution to the supervisory board and the managing board, and such request is received no later than on the sixtieth day prior to the day of the meeting.
- The agenda shall further specify that resolutions regarding such subjects can only be validly adopted in accordance with article 43, paragraph 1. No valid resolutions can be adopted at a general meeting of shareholders in respect of subjects which are not mentioned in the agenda.

Chairman of general meetings. Minutes.

Article 32.

- 32.1. General meetings shall be presided by the chairman of the supervisory board. In case of absence of the chairman of the supervisory board the meeting shall be presided by any other person nominated by the supervisory board. The chairman of the meeting shall appoint the secretary of that meeting.
- 32.2. The secretary of the meeting shall keep the minutes of the business transacted at the meeting, which minutes shall in evidence of their adoption be signed by the chairman and the secretary.
- 32.3. The chairman of the supervisory board may request a "notaris" (civil law notary) to include the minutes of the meeting in a "notarieel proces-verbaal" (notarial report).

Attendance of general meetings.

Article 33.

- 33.1. All shareholders and other persons entitled to vote at general meetings are entitled to attend the general meetings, to address the general meeting and to vote, provided that he has notified the managing board in writing of his intention to be present at the meeting or to be represented not later than on the close of business on the third day prior to the day of the meeting, unless the managing board determines to permit notification within a shorter period of time prior to any

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such meeting. For the purpose of the provisions of this paragraph holders of a usufruct who have a voting right and holders of a pledge who have a voting right are put on a par with shareholders.

- 33.2. The managing board may decide that the business transacted at a shareholders' meeting can be monitored by electronic means of communication.
- 33.3. The managing board may decide that each person entitled to attend general meetings (and vote thereat) may, either in person or by written proxy, vote at that meeting and/or participate in that meeting by electronic means of communication, provided that such person can be identified through the electronic means of communication and that such person can directly monitor the business transacted at the general meeting concerned. The managing board may attach conditions to the use of the electronic means of communication, provided these conditions are reasonable and necessary for the identification of such person and for the reliability and safety of the communication. Those conditions shall be made public at the convocation of the general meeting and shall be posted on the company's website.
- 33.4. Persons entitled to attend the general meeting are those who at the record date have these rights and have been registered as such in a register designated by the managing board for that purpose, regardless of who would have been entitled to attend the general meeting if no record date would apply. The record date shall be on such date prior to the day of the general meeting as prescribed by law. The convocation notice for the meeting shall state the record date and the manner in which the persons entitled to attend the general meeting may register and exercise their rights.
- 33.5. The general meeting may adopt rules regarding, inter alia, the length of time for which shareholders may speak. In so far as such rules are not applicable, the chairman may determine the time for which shareholders may speak if he considers this desirable with a view to the orderly proceeding of the meeting.
- 33.6. The shareholders or their proxies must sign the attendance list, stating the number of the shares represented by them - insofar as applicable - the number of votes to be cast by them.
- 33.3. The shareholders or their proxies must sign the attendance list, stating the number of the shares represented by them - insofar as applicable - the number of votes to be cast by them.

Proxies.

Article 34.

- 34.1. Shareholders and other persons entitled to attend a general meeting of shareholders may be represented by proxies duly authorised in writing, and such proxies shall be admitted upon production of such written instrument.
- 34.2. All matters regarding the admittance to the general meeting of shareholders, the exercise of voting rights and the result of votings, as well as any other matters regarding the proceedings at the general meeting of shareholders shall be decided upon by the chairman of that meeting, with due observance of the provisions of section 2:13, Civil Code.

Adoption of resolutions.

Article 35.

- 35.1. Unless otherwise stated in these articles, resolutions shall be validly adopted if adopted by a simple majority of votes cast. Blank and invalid votes shall not be counted. The chairman shall decide on the method of voting and on the possibility of voting by acclamation.
- 35.2. If the voting concerns the appointment of a person and more than one person has been nominated for appointment, then votes shall be taken until one of the nominees has obtained a simple majority of the votes cast, unless there is a

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tie vote concerning the appointment of persons, who have been named in a binding nomination, in which case the person first named in such nomination shall be deemed to have obtained most votes. The further votes may, at the chairman's discretion, be taken at a subsequent meeting.

35.3. Except as provided in paragraph 2, in case of an equality of the votes cast the supervisory board shall decide.

Voting right per share.

Article 36.

At the general meeting of shareholders each share shall confer the right to cast one vote, unless the law or the articles of association provides otherwise.

Class meetings.

Article 37.

37.1. A class meeting shall be held whenever a resolution by such meeting is required. Furthermore, such meeting shall be held if required by either the managing board or the supervisory board.

37.2. The articles 30 up to and including 36 shall be equally applicable to resolutions to be adopted by the meeting of holders of shares of a specific class, provided that the notice shall be sent not later than on the sixth day prior to the meeting, that the meeting itself appoints its chairman and that the meeting of holders of preference shares may also adopt all resolutions outside a meeting if so proposed by the supervisory board. A resolution outside a meeting is only valid if all holders of preference shares have cast their votes in writing by cable, by telex or by telecopier in favour of the proposal concerned.

Annual accounts. Report of the board of management.

Article 38.

38.1. The financial year of the company shall run from the first day of January up to and including the thirty-first day of December.

38.2. Each year the managing board shall cause annual accounts to be drawn up, consisting of a balance sheet as at the thirty-first day of December and a profit and loss account in respect of the preceding financial year, together with the explanatory notes thereto. The managing board shall furthermore prepare a report on the course of business of the company in the preceding year.

38.3. The managing board shall, within the provisions of the law, make available: the annual accounts, the annual report, the accountant(s) declaration and all other documents pursuant to the law.

38.4. The managing board shall draw up the annual accounts in accordance with applicable generally accepted accounting principles and all other applicable provisions of the law.

38.5. The supervisory board shall on behalf of the company, cause the annual accounts to be examined by one or more registered accountant(s) designated for the purposes by the general meeting of shareholders or other experts designated for the purpose in accordance with section 2:393, Civil Code. The auditor or the other expert designated shall report on his examination to the supervisory board and the managing board and shall issue a certificate containing the results thereof. The supervisory board shall ensure that the report on the annual accounts shall be available at the offices of the company for the shareholders.

38.6. Copies of the annual accounts, the annual report of the managing board, the report of the supervisory board, and the information to be added to each of such documents pursuant to the law shall be made available at the office of the company for inspection by the shareholders and the other persons entitled to attend meetings of shareholders, as

from the date of the notice convening the general meeting of shareholders at which meeting they shall be discussed, until the close thereof.

Discharge of managing board and supervisory board.

Article 39.

If the agenda of a general meeting includes the granting of discharge to the members of the managing board and the supervisory board and if such discharge is granted, the members of the managing board and the supervisory board shall be fully discharged from liability in respect of the exercise of their duties during the financial year concerned, unless a proviso is made by the general meeting of shareholders, and without prejudice to the provisions of sections 2:138 and 2:149, Civil Code.

Profit and loss.

Article 40.

40.1. Out of the profit made in any financial year first of all, if possible, shall be distributed on the preference shares the percentage to be mentioned hereinafter of the amount (call) paid obligatory on those shares as at the commencement of the financial year for which the distribution is made.

The above-mentioned percentage shall be equal to the Average Main Refinancing Rates during the financial year for which the distribution is made. Average Main Refinancing Rate shall be understood to mean the average value on each individual day during the financial year for which the distribution is made of the Main Refinancing Rates prevailing on such day. Main Refinancing Rate shall be understood to mean the rate of the Main Refinancing Operation as determined and published from time to time by the European Central Bank.

If the amount paid obligatory on the preference shares has been decreased or, in pursuance of a resolution on a further call, has been increased in the financial year for which the above-mentioned distribution is made, the distribution shall be decreased, or, if possible, increased by an amount equalling the above-mentioned percentage of the amount of the decrease, or increase, calculated as from the date of the decrease, or as from the point of time, at which the further call has become obligatory.

If preference shares have been issued in the course of any financial year, the dividend on the preference shares shall be decreased pro rata for such financial year until the date of issue, in which connection part of a month shall be counted as a full month.

If and to the extent that the profit is not sufficient to make the payment referred to in this paragraph in full, the deficit will be distributed against the reserves, with the exception of the reserve which was formed as share premium upon the issue of financing preference shares.

40.2. In the event of cancellation with repayment of preference shares a distribution will be made on the cancelled preference shares on the day of repayment, which distribution will be calculated as much as possible in accordance with the provisions of paragraph 1 and 3 of this article and pro rata temporis to be calculated on the period from the day on which a distribution as meant in paragraphs 1 and 3 was made for the last time - or if the preference shares have been issued following such day: from the day of issue - until the day of repayment, without prejudice to the provisions of article 2:105, paragraph 4 Civil Code.

40.3. If in any financial year the profit meant in paragraph 1 is not sufficient to make the distributions described above in this article and in addition no distribution or only a part distribution is made from the reserves, as meant in paragraph 1, such that the deficit is not fully distributed, the provisions above in this article and the provisions of paragraphs 4 and 7 shall not be applied until the deficit has been recovered.

- 40.4. Out of the profit remaining after application of the previous paragraphs such amounts shall be allocated to reserve as the supervisory board shall determine.
- Insofar as the profit is not allocated to reserve upon application of the preceding sentence:
- a. if possible, a dividend shall be distributed on each financing preference share equalling a percentage calculated on the nominal amount, increased by the amount of share premium that was paid upon the first issue of financing preference shares and which percentage is related to the average effective yield on the prime interest rate on corporate loans in the United States of America as quoted in the Wall Street Journal, calculated and fixed in the manner as stated hereinafter.
 - b. The percentage of the dividend for the financing preference shares is calculated by taking the average effective yield of the above-mentioned loans, for the last twenty exchange days, prior to the day on which financing preference shares are issued for the first time or on which the dividend percentage is adjusted, possibly increased or decreased by a maximum of one per cent point, depending on the then prevailing market conditions, as the managing board shall resolve subject to the approval of the supervisory board.
 - c. For the first time on the first of January of the calendar year following on the day after three years have lapsed since the day on which financing preference shares are issued for the first time and every time three years later, the dividend percentage of all financing preference shares concerned may be adjusted to the then average effective yield of the prime interest rate on corporate loans in the United States of America as quoted in the Wall Street Journal, calculated and fixed in the manner as stated in b.
- 40.5. If in any financial year the distributions meant above in paragraph 4 of this article have not been made, the provisions of paragraphs 4 second sentence and 7 of this article shall not be applied until the deficit has been recovered and after the provisions above in paragraphs 1 and 3 become applicable. The managing board shall be authorised subject to the approval of the supervisory board to decide to distribute an amount equal to the deficit meant in the previous sentence against the reserves, with the exception of the reserve which was formed as share premium upon the issue of financing preference shares.
- 40.6. If financing preference shares are issued in the course of any financial year, the dividend on the financing preference shares shall be decreased pro rata for such financial year until the first day of issue.
- 40.7. Insofar as the profit is not distributed or allocated to reserve upon application of the previous paragraphs of this article, it shall be at the free disposal of the general meeting, with the proviso that no further dividend will be distributed on the preference shares and the financing preference shares.
- 40.8. The managing board may with due observance of Article 2:105 Civil Code and with the approval of the supervisory board distribute an interim dividend, if and to the extent that the profit so permits. Interim dividends may be distributed on one class of shares only.
- 40.9. The general meeting may resolve on a proposal made by the supervisory board wholly or partly to distribute dividends or reserves, instead of cash, in the form of shares in the capital of the company.
- 40.10. In the event of cancellation with repayment of financing preference shares a distribution will be made on the cancelled financing preference shares on the day of repayment, which distribution will be calculated as much as possible in accordance with the provisions of paragraph 4 and 5 of this article that pro rata temporis to be calculated on the period from the day on which a distribution as meant in paragraphs 1 and 3 was made for the last time - or if the financing

preference shares have been issued following such day: from the day of issue - until the day of repayment, without prejudice to the provisions of article 2:105.4 Civil Code.

- 40.11. A deficit as meant in article 2:104 Civil Code, may only be applied against the share premium formed upon the issue of financing preference shares, if all other reserves are depleted.
- 40.12. The company can only declare distributions in so far as its "eigen vermogen" (shareholders equity) exceeds the amount of the paid up and called portion of the share capital, plus the "wettelijke" (statutory) reserves.

Distributions charged to share premium reserves or other reserves.

Article 41.

Notwithstanding the provisions of article 40, paragraph 12, the supervisory board may cause the company to declare distributions out of a share premium reserve or out of any other reserve shown in the annual accounts, not being a "wettelijke" (statutory) reserve.

Distributions. Payments.

Article 42.

- 42.1. Distributions pursuant to article 40 or article 41 shall be payable as from a date to be determined by the supervisory board.
- 42.2. Distributions under article 40 or article 41 shall be made payable at an address or addresses in the Netherlands, to be determined by the supervisory board, as well as at least one address in each country where the shares of the company are listed on a stock exchange.
- 42.3. The supervisory board may determine the method of payment of cash distributions on shares.
- 42.4. The person entitled to a distribution shall be the person in whose name the share is registered at the date to be determined for that purpose by the supervisory board in respect of each distribution, which date should be between the date of determination of distributions and the date of payment.
- 42.5. Notice of distributions and of the dates and addresses referred to in the preceding paragraphs of this article shall in any event be published in the Netherlands, in a daily newspaper and further in such manner as the supervisory board may deem desirable.
- 42.6. Distributions in cash that have not been collected within five years and two days after they have become due and payable shall revert to the company.
- 42.7. In case of a distribution in the form of shares in the share capital of the company pursuant to article 40, paragraph 8, such shares shall be recorded in the share register.
- 42.8. The provisions of paragraph 5 shall apply equally in respect of distributions - including pre-emptive subscription rights in the event of a share issue - made otherwise than pursuant to article 40 or article 41, provided that in addition thereto in the "Staatscourant" (Dutch Official Gazette) shall be announced the issue of shares with a pre-emptive subscription right and the period within which such right can be exercised.
- Such pre-emptive subscription right can be exercised during at least two weeks after the day of notice in the "Staatscourant" (Dutch Official Gazette).

Special resolutions of the general meeting.

Article 43.

- 43.1. Resolutions of the general meeting in a meeting that has not been convened by the managing board and/or the supervisory board or resolutions regarding subjects included on the agenda for the meeting at the request of

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shareholders pursuant to article 31, paragraph 2 shall only be valid if adopted with a majority of two thirds (2/3) of the votes cast representing more than half of the issued share capital, unless these articles require a greater majority or quorum, in which case the greater majority or quorum shall apply, and provided, however, that as set forth in paragraph 2 of this article certain resolutions shall only be valid if proposed by the supervisory board. A second general meeting as referred to in Article 2:120, paragraph 3, Civil Code may not be convened.

43.2. A resolution of the general meeting to:

- a. amend the articles of association;
- b. dissolve the company;
- c. issue shares or to grant rights to subscribe for shares;
- d. limit or exclude any pre-emptive rights to which shareholders shall be entitled,

shall only be valid if such resolution has been proposed to the general meeting by the supervisory board.

43.3. A resolution of the general meeting to:

- a. a legal merger ("juridische fusie"), or
- b. approve or authorize the managing board to sell all or substantially all of the assets of the company, shall only be valid if such resolution:
 - (i) either has been proposed to the general meeting by the supervisory board and is adopted by a simple majority of the votes cast; or
 - (ii) such resolution is adopted by a majority representing at least two thirds (2/3) of the issued share capital.

A second general meeting as referred to in Article 2:120, paragraph 3 Civil Code may not be convened.

43.4. A resolution of the general meeting to amend the articles of association shall further only be valid if:

- (i) the complete proposal has been made available for inspection by the shareholders and the other persons entitled to attend the general meeting of shareholders, at the office of the company as from the day of notice convening such meeting until the close of that meeting; and
- (ii) a resolution to amend the articles of association by which the rights conferred on holders of shares of a specific class as such are changed has been approved by the relevant class meeting.

Dissolution. Liquidation.

Article 44.

- 44.1. If the company is dissolved, the liquidation shall be carried out by the person designated for that purpose by the general meeting of shareholders, under the supervision of the supervisory board.
- 44.2. The general meeting of shareholders shall upon the proposal of the supervisory board determine the remuneration payable to the liquidators and to the person responsible for supervising the liquidation.
- 44.3. The liquidation shall take place with due observance of the provisions of the law. During the liquidation period these articles of association shall, to the extent possible, remain in full force and effect.
- 44.4. After settling the liquidation, the liquidators shall render account in accordance with the provisions of the law.
- 44.5. After the company has ceased to exist, the books and records of the company shall remain in the custody of the person designated for that purpose by the liquidators during a seven-year period.

Distribution to shareholders upon dissolution.

Article 45.

After payment of all liabilities and the cost of liquidation, the balance of the assets of the Company shall be divided as follows:

- a. in the first place, if possible, the holders of preference shares shall be paid the nominal amount paid on their preference shares, increased by the shortfall in the payment under article 40 and increased by an amount equal to the percentage on the nominal amount meant in article 40, calculated for the period, commencing on the first day of the last completely expired financial year preceding the dissolution and ending on the day of the distribution on preference shares meant in this article, with the proviso that all dividends which have been paid on the preference shares for this period shall be deducted from the distribution pursuant to this section;
- b. subsequently the holders of financing preference shares shall be paid the nominal amount paid on their financing preference shares, as well as the premium reserve paid on their shares upon issue of the same, increased by the shortfall in the payment under article 40 and increased by an amount equal to the percentage on the nominal amount meant in paragraph 4.a. of article 40 (as possibly adjusted on the basis of the provision of that article paragraph 4.c.) on the nominal amount after such amount has been increased by the premium reserve paid on their shares upon issue of the same, calculated for the period, commencing on the first day of the last completely expired financial year preceding the dissolution and ending on the day of the distribution on financing preference shares meant in this article, with the proviso that all dividends which have been paid on the preference shares for this period shall be deducted from the distribution pursuant to this section;
- c. the balance then remaining shall be distributed among the holders of ordinary shares in proportion to the number of ordinary shares held by each of them.

Unclaimed distributions upon dissolution.**Article 46.**

Any amounts payable to shareholders or due to creditors which are not claimed within six (6) months after the last distribution was made payable, shall be deposited with the "consignatiekas" (Public Administrator of Unclaimed Debts).

LIST OF SUBSIDIARIES

The following is a list of the Registrant's subsidiaries as of December 31, 2016, other than certain subsidiaries that did not in the aggregate constitute a significant subsidiary.

Company Name	Jurisdiction of Incorporation
Amnisure International, LLC	USA
Cellestis, LLC	USA
Cellestis Ltd.	Australia
MO BIO Laboratories, Inc.	USA
QIAGEN Aarhus A/S	Denmark
QIAGEN AB	Sweden
QIAGEN AG	Switzerland
QIAGEN Australia Holding Pty. Ltd.	Australia
QIAGEN Benelux B.V.	Netherlands
QIAGEN Beverly, Inc.	USA
QIAGEN China (Shanghai) Co. Ltd.	China
QIAGEN Deutschland Holding GmbH	Germany
QIAGEN Distribution B.V.	Netherlands
QIAGEN Finance (Ireland) Ltd.	Ireland
QIAGEN Finance (Malta) Ltd.	Malta
QIAGEN France S.A.S.	France
QIAGEN Gaithersburg, Inc.	USA
QIAGEN GmbH	Germany
QIAGEN Hamburg GmbH	Germany
QIAGEN Inc. (Canada)	Canada
QIAGEN Inc. (USA)	USA
QIAGEN Instruments AG	Switzerland
QIAGEN K.K.	Japan
QIAGEN Korea	South Korea
QIAGEN Lake Constance GmbH	Germany
QIAGEN Ltd.	UK
QIAGEN Manchester Ltd.	UK
QIAGEN Marseille SA	France
QIAGEN Mexico, S. de R.L. de C.V.	Mexico
QIAGEN North American Holdings Inc.	USA
QIAGEN Pty. Ltd.	Australia
QIAGEN Redwood City, Inc.	USA
QIAGEN Sciences, LLC	USA
QIAGEN S.r.l.	Italy
QIAGEN U.S. Finance Holdings (Luxembourg) SARL	Luxembourg
QIAGEN Waltham, Inc.	USA
Quanta BioSciences, Inc.	USA
SA Biosciences, LLC	USA

CERTIFICATION UNDER SECTION 302

I, Peer M. Schatz, certify that:

1. I have reviewed this annual report on Form 20-F of QIAGEN N.V;
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 company as of, and for, the periods presented in this report;
4. The company'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 company 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 company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company'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 company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company'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 company'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 company's internal control over financial reporting.

Date: March 3, 2017

/s/ Peer M. Schatz

Peer M. Schatz
Managing Director and Chief Executive Officer

CERTIFICATION UNDER SECTION 302

I, Roland Sackers, certify that:

1. I have reviewed this annual report on Form 20-F of QIAGEN N.V;
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 company as of, and for, the periods presented in this report;
4. The company'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 company 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 company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the company'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 company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company'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 company'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 company's internal control over financial reporting.

Date: March 3, 2017

/s/ Roland Sackers

Roland Sackers
Managing Director and Chief Financial Officer

CERTIFICATIONS UNDER SECTION 906

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), each of the undersigned officers of QIAGEN N.V., does hereby certify, to such officer's knowledge, that:

The Annual Report for the year ended December 31, 2016 (the "Form 20-F") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 20-F fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 3, 2017

/s/ Peer M. Schatz

Peer M. Schatz
Managing Director and
Chief Executive Officer

Dated: March 3, 2017

/s/ Roland Sackers

Roland Sackers
Managing Director and
Chief Financial Officer

Consent of Independent Registered Public Accounting Firm

The Supervisory Board

QIAGEN N.V.:

We consent to the incorporation by reference in the registration statement (No. 333-162052) on Form F-3 and the registration statements (Nos. 333-178035, 333-127393, 333-145171 and 333-203220) on Form S-8 of QIAGEN N.V. of our reports dated March 3, 2017, with respect to the consolidated balance sheets of QIAGEN N.V. as of December 31, 2016 and 2015, and the related consolidated statements of income, comprehensive income (loss), changes in equity, and cash flows for each of the years in the two year period ended December 31, 2016 and the related financial statement schedule as listed in Item 18 (A), and the effectiveness of internal control over financial reporting as of December 31, 2016, which reports appear in the December 31, 2016 annual report on Form 20-F of QIAGEN N.V.

As discussed in Note 1 to the consolidated financial statements, in 2016, the Company changed its accounting method of share-based compensation from a straight-line attribution method for expense recognition to an accelerated attribution method. The Company applied this change in accounting principle retrospectively to all prior periods presented.

/s/ KPMG AG Wirtschaftsprüfungsgesellschaft

Düsseldorf, Germany

March 3, 2017

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form F-3 No. 333-162052) of QIAGEN N.V.; and
- (2) Registration Statements (Form S-8 Nos. 333-178035, 333-127393, 333-145171 and 333-203220) pertaining to the QIAGEN N.V. Amended and Restated 2005 Stock Plan and the QIAGEN N.V. 2014 Stock Plan

of our reports dated February 27, 2015, except for Note 20 as to which the date is March 3, 2017, with respect to the consolidated financial statements and schedule of QIAGEN N.V. and Subsidiaries included in this Annual Report (Form 20-F) for the year ended December 31, 2016.

March 3, 2017

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft
Düsseldorf, Germany

/s/Hendrik Hollweg
Wirtschaftsprüfer
[German Public Auditor]

/s/Tobias Schlebusch
Wirtschaftsprüfer
[German Public Auditor]