

# MANAGEMENT REPORT

## Future Perspectives

### QIAGEN Perspectives for 2018

Building on global leadership in differentiated Sample to Insight solutions for molecular testing, QIAGEN expects to sustain its sales and earnings growth in 2018 and beyond. Delivering solutions that exceed the expectations of customers is a key competitive advantage in serving customers across the value chain, from healthcare users of Molecular Diagnostics to researchers in Academia and the pharmaceutical industry, as well as public safety laboratories. QIAGEN is two years into executing on mid-term strategic plans to enhance financial performance and returns to shareholders from 2016 through 2020. Focused investments in innovation and commercial support have created a faster sales trajectory for a set of growth drivers, while efficiency and capital allocation initiatives are delivering on operating leverage and increased profitability.

In 2018 QIAGEN continues to focus on the expansion of its business activities for differentiated molecular testing solutions in fast-growing markets. QIAGEN's growth engines include expanding the market for QuantiFERON-TB technology in tuberculosis control; driving the adoption of next-generation sequencing in clinical research and diagnostics; extending QIAGEN's leadership in Personalized Healthcare for cancer and other diseases; increasing placements of the QIASymphony platform with its growing menu of applications; and deepening QIAGEN's long-standing leadership in innovative core technologies for sample processing. This portfolio is united by the Sample to Insight approach enabling customers to embrace efficient, automated workflows with integrated tools for interpreting molecular data.

QuantiFERON-TB is growing rapidly as global efforts intensify to control tuberculosis (TB), the world's most deadly infectious disease. As the most accurate, cost-effective screening test for latent TB infection, QuantiFERON-TB is displacing the antiquated tuberculin skin test. The fourth-generation QuantiFERON-TB Gold Plus test launched in the United States in 2017, after adoption in more than 75 other countries. This new test will be introduced in Japan in 2018. Also in 2018, QIAGEN and DiaSorin plan to offer customers a state-of-the-art automation option to run QuantiFERON-TB Gold Plus on 7,000-plus DiaSorin LIAISON analyzers worldwide.

Next-generation sequencing (NGS) is rapidly emerging from elite research labs into clinical research and diagnostics because high-throughput analysis enables new depths of genomic insights. In 2017, QIAGEN sales of NGS solutions grew at double-digit rates, passing \$115 million. We are targeting more than \$140 million in 2018. Our broad portfolio of "universal" solutions includes the leading sample technologies, "Digital NGS" assays and bioinformatics. The GeneReader NGS System, the first purpose-built NGS system for clinical panel testing, is gaining acceptance. In 2017, we expanded GeneReader's capabilities and content menu and added the platform to Pharma collaborations. In China, QIAGEN launched a joint venture with a leading IVD company to accelerate adoption of the GeneReader system.

Personalized healthcare, using a patient's unique genomic characteristics to guide treatment decisions, is driving the growth of QIAGEN's companion diagnostics and collaborations with Pharma companies. As the leading independent developer of companion diagnostics, QIAGEN achieved a milestone of 25 master collaborations in 2017, with 15 new co-development projects, including groundbreaking projects to develop diagnostics guiding

immuno-oncology therapies. QIAGEN is the only industry partner developing companion diagnostics for both PCR and NGS platforms. At least five FDA approvals or submissions are planned in 2018.

QIASymphony, a medium-throughput platform for Sample to Insight analysis with polymerase chain reaction (PCR) as well as efficient sample preparation for other needs, soundly beat its target of 2,000 cumulative placements in 2017. Consumable sales achieved double-digit growth. The QIASymphony SP module is the market-leading “front end” solution for reliable, automated processing of samples, including liquid biopsies – a critical need in NGS as well as PCR. QIAGEN expects to launch several new regulator-approved diagnostic tests for QIASymphony in 2018 and has set a target of 2,300 cumulative placements by year-end.

Differentiated core technologies, enabling labs to efficiently process samples and obtain high-quality DNA and RNA for testing, built QIAGEN’s global reputation– and continue to drive growth with innovative solutions to new challenges. QIAGEN technologies process an estimated 50,000 biological samples a day. Our focus is on rapidly growing applications in research and diagnostics such as liquid biopsies, single-cell analysis, epigenetics and the microbiome. By leading the way in innovative sample processing solutions, QIAGEN continues to generate double-digit growth in differentiated technologies.

Bioinformatics continues to grow rapidly as QIAGEN adds software applications and augments our expertly curated, literature-based datasets to offer new insights. In 2017, we acquired OmicSoft Corporation to address customers’ growing need to access and manage huge amounts of data on DNA, RNA and other “omics.” QIAGEN Clinical Insight (QCI) software added an important tool for precision medicine by automating guidelines for use of next-generation sequencing in cancer. Bioinformatics promises to help drive growth as a standalone franchise and a value-added element in Sample to Insight workflows.

QIAGEN also creates value with targeted acquisitions expanding our presence in fast-growing fields. In early 2018, QIAGEN agreed to acquire STAT-Dx and its portfolio of multiplex diagnostics for syndromes such as serious respiratory or gastrointestinal infections. Pending the completion of the acquisition, QIAGEN plans to launch the first two tests, extensive respiratory and gastrointestinal panels, in Europe and other markets in the second half of 2018, followed by U.S. launch pending regulatory clearance in 2019.

QIAGEN has begun to streamline its product portfolio by divesting smaller activities to focus on growth opportunities. In late 2017 and early 2018, we stopped commercialization of some non-core PCR tests in China and transferred the HPV test franchise there (including R&D, distribution, and related staff and infrastructure) to a third-party company in China. This will free up resources to support QuantiFERON-TB, NGS and the Life Sciences portfolio.

Ongoing actions to improve efficiency are expected to continue to benefit results in 2018. Key areas include consolidating activities into shared service centers and global centers of excellence, gaining efficiencies in marketing, and embracing digital tools across the business. Digital channels account for a growing portion of sales (reaching 37% in 2017).

## Global Economic Perspectives for 2018

A broad-based global recovery is driving expectations for continued growth in economic output, with a slight acceleration in 2018 from stronger-than-expected 2017 expansion. The World Bank forecasts global GDP growth of 3.1% in 2018, up from 3.0% in 2017, and moderating back to 3.0% in 2019. The momentum reflects a rebound in investment, manufacturing and trade amid continued low interest rates, firming commodity prices and rising confidence. Risks remain, including geopolitical unrest, a shift toward tighter monetary policy and the possibility of a financial market disruption. In the United States, recently enacted tax reform is expected to stimulate investment and output. Europe, which saw demand strengthen in 2017, may expand at a more moderate pace in 2018. China is expected to continue gradual cooling of its rapid growth, amid brisk expansion across emerging markets broadly.

Japan remains in a slow-growth trend. Economic momentum tends to benefit the business environment for QIAGEN, while a downturn could hurt customer funding budgets. Currency exchange rates also affect results reported in U.S. dollars.

## Industry Perspectives for 2018

The value of genomic insights is increasingly recognized in medicine and other fields, offering opportunities for QIAGEN to sustain its growth trajectory in 2018 and beyond. Discovery and innovation continue to drive market expansion.

Molecular diagnostics is growing briskly as healthcare providers adopt genomic testing to evaluate and monitor patients for cancer, infectious diseases and other conditions. Personalized medicine, using molecular tests to guide treatment decisions, is expanding rapidly as new discoveries develop into marketed therapies. In 2017, the U.S. Food and Drug Administration for the first-time approved use of an oncology drug based on results of genetic biomarker tests rather than the location of the cancer. Also in 2017, the FDA approved the first CAR T-cell therapies, which genetically modify immune cells to fight cancer. These developments presage a wave of new therapies based on genomic insights. Molecular diagnostics also are migrating from research institutions into hospitals in need of quick, accurate results – driving demand for standardized tests and automated workflows. Diagnostic customers embrace a range of diverse technologies, ranging from single-target or multiplex PCR analysis to in-depth next-generation sequencing. In each application, easy-to-use technologies and decision-support software are critical.

Life science research in Academia and the Pharma industry rely on novel sample and sequencing technologies for discovery of disease pathways and biomarkers, and increasingly to guide drug development and clinical trials. Applications of molecular testing also are expanding for public safety needs such as forensics and environmental monitoring.

## Subsequent Events

On January 31, 2018, we announced our fifth share repurchase program of up to \$200 million of our common shares beginning in 2018 as well as the acquisition of STAT-Dx for approximately \$147 million in cash and additional payments of up to approximately \$44 million based on the achievement of regulatory and commercial milestones. The acquisition is expected to be completed in 2018 and funded from existing cash reserves.

In January 2018, a partnership became effective with a Chinese company that has taken over R&D, commercial distribution, and the related QIAGEN employees and infrastructure of the HPV test franchise in China.