

# Making improvements in life possible

Investor resource book

Third quarter 2022



### Forward looking and intended use statements



Safe Harbor Statement: This presentation contains both historical and forward-looking statements. All statements other than statements of historical fact are, or may be deemed to 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. These statements are based on current expectations of future events. If underlying assumptions prove inaccurate or unknown risks or uncertainties materialize, actual results could vary materially from our own expectations and projections. Some of the factors that could cause actual results to differ include, but are not limited, to the following: general industry conditions and competition; risks associated with managing growth and international operations (including the effects of currency fluctuations, regulatory processes and dependence on logistics), variability of operating results and allocations between customer classes, and the commercial development of markets for our products to customers in academia, pharma, applied testing and molecular diagnostics; changing relationships with customers, suppliers and strategic partners; competition; rapid or unexpected changes in technologies; fluctuations in demand for QIAGEN's products (including factors such as general economic conditions, the level and timing of customers' funding, budgets and other factors); our ability to obtain regulatory approval of our products; technological advances of our competitors and related legal disputes; difficulties in successfully adapting QIAGEN's products to integrated solutions and producing such products; the ability of QIAGEN to identify and develop new products and to differentiate and protect our products from competitor products; market acceptance of QIAGEN's new products and the integration of acquired technologies and businesses. For further information, please refer to "Risk Factors" section of reports that QIAGEN has filed with, or furnished to, the U.S. Secu

Regulation G: QIAGEN reports adjusted results, as well as results on a constant exchange rate (CER) basis, and other non-U.S. GAAP figures (generally accepted accounting principles), to provide additional insight on performance. In this presentation, adjusted results include adjusted net sales, adjusted gross income, adjusted net income, adjusted operating expenses, adjusted operating income, adjusted operating margin, adjusted net income before taxes, adjusted income tax, adjusted tax rate, adjusted EBITDA, adjusted EPS, adjusted diluted EPS and free cash flow. Adjusted results are non-GAAP financial measures QIAGEN believes should be considered in addition to reported results prepared in accordance with GAAP but should not be considered as a substitute. QIAGEN believes certain items should be excluded from adjusted results when they are outside of its ongoing core operations, vary significantly from period to period, or affect the comparability of results with its competitors and its own prior periods. Please see the Appendix provided in this presentation "Reconciliation of Non-GAAP to GAAP Measures" for reconciliations of historical non-GAAP measures to comparable GAAP measures and the definitions of terms used in the presentation. QIAGEN does not reconcile forward-looking non-GAAP financial measures to the corresponding GAAP measures due to the high variability and difficulty in making accurate forecasts and projections that are impacted by future decisions and actions. Accordingly, reconciliations of these forward-looking non-GAAP financial measures to the corresponding GAAP measures are not available without unreasonable effort. However, the actual amounts of these excluded items will have a significant impact on QIAGEN's GAAP results.

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We help advance science and improve outcomes

**Our Mission** 

**Enabling access to** valuable insights from molecular research to clinical healthcare

**Our Vision** 

**Making improvements** in life possible



# QIAGEN provides solutions to uncover molecular insights – faster, better and more efficiently – from Sample to Insight





Biological sample















# Sample to Insight solutions

- Sample Technologies
- Assay Technologies
- Automation Systems
- Bioinformatics



- Advancing knowledge about the building blocks of life – DNA, RNA and proteins
- Faster and better drug R&D

molecular insights

- Better disease diagnosis
- Ensuring public safety
- · Better outcomes with precision medicine

### QIAGEN at a glance



Our products support scientists and clinicians to advance scientific discovery and improve patient outcomes





**Balanced customer markets** 

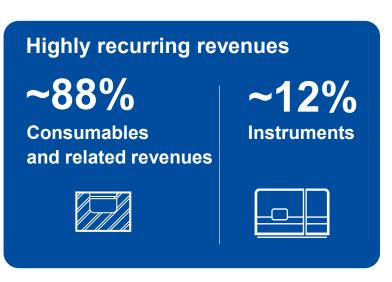
~50%

Molecular Diagnostics ~50%

Life Sciences

>500,000 customers worldwide







# There is an unprecedented need for molecular research and testing to tackle the health challenges of our time











Our knowledge about the building blocks of life – DNA, RNA and proteins - is growing

The challenge is to make the most of this information

Tuberculosis is still one of the world's most significant infectious killers

In 2020, it killed 1.5 million people

Cancer remains a leading cause of death worldwide despite progress

It accounted for nearly 10 million deaths in 2020

Infectious diseases have been – and will remain – a truly global health risk

Six major pandemics over the past 20 years

# Our products are found in laboratories worldwide - from young scientists to Nobel laureates

















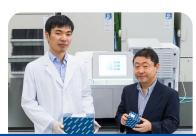




















We help over **500,000 customers** unlock molecular insights that address healthcare challenges.

That's how we help make improvements in life possible.





# >750 million COVID-19 tests in 2021 relied on QIAGEN products



#### **Testing**

- RNA sample preparation
- PCR testing solutions
- OEM components for other suppliers



#### Surveillance

- Immune level testing
- NGS variant monitoring
- Wastewater testing





Global presence with a focus on the most attractive developed and emerging markets



#### Our global and regional headquarters

Venlo

**Netherlands** 

Global HQ

Germantown

Maryland

Americas HQ

Hilden

Germany

EMEA HQ

Shanghai

China

Asia-Pacific HQ

Distribution partners in over

60 countries



# Our Strategy: Focus on areas to build and maintain leading positions



**Expanding on solid leadership** 

Early commercialization phases with strong growth potential

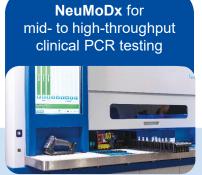
5 pillars of growth



Nr. 1 in









Leading the way

Sample Our

portfolio areas



# Five pillars of growth: Advancing key drivers to capture large opportunities



**Targeting >\$6 billion of our >\$11 billion total addressable market** 

Sample technologies

**QuantiFERON** 

QIAstat-Dx

NeuMoDx

**QIAcuity** 



Constituted in the constitute of the constitute







How we win

- Leading reputation, broadest portfolio with >300 kits and instruments
- >200,000 publications

- Fully automated workflow
- Version for lowresource countries
- Sample prep in <1 min
- More than "yes/no" data
- Faster time to result
- Ease of use
- LDT capability

- · Rapid time to result
- Scalable, integrated platforms
- Wide application options

**2022** goals

- Expansion of **EZ2 Connect** worldwide
- Expansion of QIAprep&amp innovative liquid technology
- New application kits e.g., QIAwave – Ecofriendly kits

- QFT-Lyme submission (FDA)
- Expansion of QIAreach-QFT TB
- QFT- 4G China

- QIAstat-Dx Rise (High throughput)
- Gastrointestinal launch (FDA)
- Meningitis submission (FDA)
- BCID (CE-IVD)

- Conversion in EU to non-COVID menu
- CT/NG submission (FDA)
- GBS submission (FDA)

- Non-Invasive Prenatal testing
- Multi-omics: combined DNA and protein analysis

# Five pillars of growth: Expected trends in 2022 and beyond



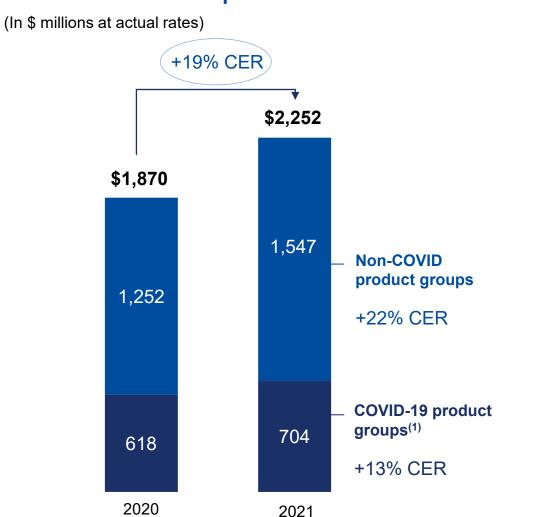
		Cumulative placements (As of Jan 2022)	2022 sales goals (CER)	Post-COVID dynamics
	Sample technologies	QIAsymphony >3,000 QIAcube >13,000 EZ1 and EZ2 >4,800	>\$750 m	Sustainable low- to mid- single-digit CER growth
The state of the s	QuantiFERON		>\$310 m	Sustainable low-double-digit CER growth
	QIAstat-Dx	~2,900	>\$85 m	Sustainable double-digit CER growth
	NeuMoDx	~220	>\$80 m	Sustainable double-digit CER growth
****	QIAcuity digital PCR	~730	>\$55 m	Sustainable double-digit CER growth

CER - Constant Exchange Rates.

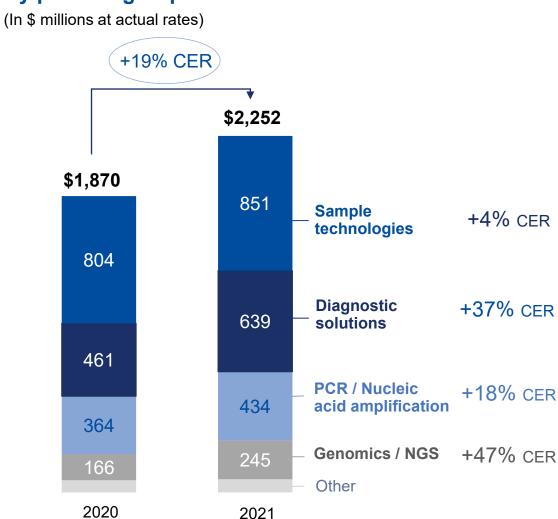
### FY 2021: Solid growth trends beyond COVID in all product groups



#### Non-COVID / COVID split



#### By product group



<sup>1) 2019</sup> sales of ~\$150 m in COVID-19 product groups for products with versatile RNA processing and analytics applications. Growth rates vs. FY 2020 at CER. | Refer to appendix for growth at actual rates. | Tables may contain rounding differences.

# FY 2021: Investing in the business while building value



#### Adj. operating income

(In \$ millions)



 Adjusted operating income margin

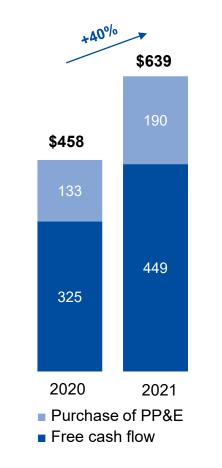
#### **Adjusted EPS**

(In \$ per share)



#### **Operating cash flow**

(In \$ millions)



# Targeted investments into key drivers

~65% of R&D spending focused on five pillars of growth



# Disciplined operating expenses and price increase management

Annual price adjustment carried out to reflect product value and increasing costs



#### **Dynamic cash flow performance**

Strong free cash flow throughout FY 2021 balanced with healthy leverage profile



Refer to appendix for reconciliation of reported to adjusted figures. PP&E – property, plant & equipment



### Outlook: Q3 and FY 2022



Q3 2022 outlook

≥ \$510 million CER

Adverse FX impact of ~ -6 p.p (*Prior year:* \$534.7 m)

Non-COVID product groups

Anticipated currency impact

**Adjusted EPS** 

**Net sales** 

Anticipated currency impact

Adjusted tax rate

**Shares outstanding**<sup>(1)</sup>

≥ \$0.48 CER

Adverse FX impact of ~ -\$0.02-0.03 (Prior year: \$0.58)

~17-18%

~230 million

**Updated FY 2022 outlook** 

≥ \$2.2 billion CER

Adverse FX impact of  $\sim$  -5 p.p. (*Prior year:* \$2,251.7 m)

Double-digit CER growth

≥ \$2.30 CER

Adverse FX impact of ~ -\$0.10-0.11 (Prior year: \$2.65)

~18-19%

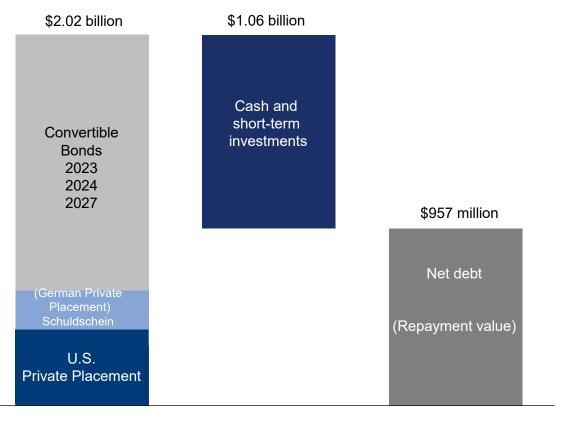
~230 million

Outlook as of July 26, 2022, see appendix for additional information | CER - Constant Exchange Rates | 1) Based on \$50.00 share price

### Maintaining financial flexibility with appropriate leverage

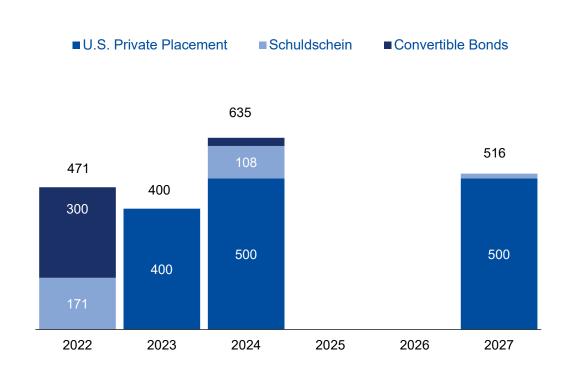


#### Structure as of December 31, 2021



#### **Maturities of debt instruments**

(In \$ millions)



#### Convertible notes (~\$1.400 bn):

\$400 m 0.500% due 2023 (\$49.98 effective conversion price) \$500 m 1.000% due 2024 (\$50.29 effective conversion price) \$500 m 0.000% due 2027 (\$80.72 effective conversion price)

#### U.S. Private Placement (~\$327 m):

\$300 m 3.75% notes due 2022 \$27 m 3.90% notes due 2024

#### Schuldscheindarlehen (German debt) (~\$295 m):

€34.5 m paid in Q1-2021 (fix 0.40%, floating 6m EURIBOR+0.40%) €111 m due 2022 (fix 0.68%, floating 6m EURIBOR+0.50%) \$45.0 m due 2022 (floating LIBOR + 1.2%) €95.0 m due 2024 (fix 1.09%, floating 6m EURIBOR+0.70%) €14.5 m due 2027 (fix 1.61%)

# Supporting growth while increasing returns to shareholders



### Healthy cash flow trends



capital

allocation

strategy



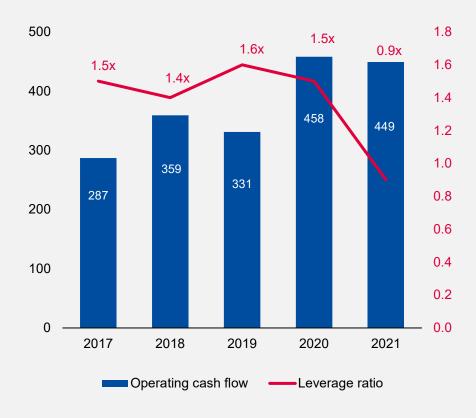
Fuel sustainable and profitable growth, especially in the five pillars

#### **Enhance value with M&A**

Ongoing disciplined approach with bolt-on acquisitions in five pillars

#### **Share repurchase programs**

\$100m program completed in 2021 in line with commitment to increase returns



(Net debt / adjusted EBITDA)

# Why invest in QIAGEN: Strong de-risked investment case with compelling differentiation



# Highly recurring revenues

Sales driven by steady customer shipments of high margin consumables

Consumables and related revenues comprise

88%



of 2021 net sales

2021 adjusted gross profit margin

68%

# Broad geographic reach

Robust structures securing access to markets across the globe

**14%** of 2021 sales from top 7 emerging markets



35

subsidiaries in >25 countries

Distribution partners

>60 countries

#### **Second brands**

optimize regional opportunities



# Diversified customer base

Well-balanced sales split between Life Sciences and Molecular Diagnostics

**Addressable markets - growth trends** 



Molecular
Diagnostics
~9-11% CAGR



#### Net sales

### Life Sciences: Enabling the advancement of science





#### **QIAGEN** value

- Recognized innovator supporting breakthrough science
- Ability to translate innovations into commercial products



#### **Selected QIAGEN products**

#### Sample technologies Assay technologies Instruments **Bioinformatics** Ingenuity Pathway Analysis (IPA) • ~300 different kit types Real-time PCR QIAsymphony Liquid biopsy, tissue, blood, cells, Digital PCR **QIAcube Connect** Genomics Workbench / Server plants, microbiome, other Next-generation sequencing QlAcuity digital PCR Microbial Pro Suite / RNA-seq RotorGene Q Microbial Epigenetics

### Molecular Diagnostics: Improving outcomes for patients





#### **QIAGEN** value

- 2021 sales of ~\$1.1 billion
- Focused on high-growth, high-demand opportunities
- Strong automation portfolio with multi-year assay menu expansion underway



#### **Selected QIAGEN products**

Sample technologies	Assay technologies	Instruments	Bioinformatics
Tissue	Indication areas	QIAstat-Dx	QIAGEN Clinical Insight (QCI)
• Blood	<ul> <li>Oncology</li> </ul>	<ul> <li>NeuMoDx</li> </ul>	<ul> <li>Hereditary diseases</li> </ul>
Liquid biopsy	<ul> <li>Immune modulation</li> </ul>	<ul> <li>QIAsymphony RGQ</li> </ul>	<ul> <li>Somatic and germline cancers</li> </ul>
Swabs, other	<ul> <li>Infectious diseases Technologies: QFT, PCR, NGS</li> </ul>		All diseases

# Bioinformatics: Offering unique genomic data analysis and interpretation capabilities





#### **QIAGEN** value

- 2021 sales: ~\$89 million
- Industry leader in commercial bioinformatics solutions
- Offering solutions in combination with the QIAGEN "wet lab" products or as stand-alone solutions



#### **Selected QIAGEN products**

#### **Discovery informatics**

Curated research findings and largest collection of integrated scientific and clinical databases and interpretation solutions

#### Clinical testing informatics

Knowledge bases of clinically relevant variants for hereditary and somatic assays with QCI (QIAGEN Clinical Insight) reporting

#### Genomic-based content

Unique digital assets compiled over 20 years, including >1,000,000 patient tests analysed with QIAGEN cloud-based clinical solutions to date



QIAGEN product portfolios



# Reporting sales in product groups



QIAGEN	Five pillars of growth					
product groups		Sample technologies <sup>(1)</sup>	QIAcuity digital PCR <sup>(3)</sup>	QIAstat-Dx	NeuMoDx	QuantiFERON
Sample technologies <sup>(1)</sup>	Consumables and instruments used in sample collection, stabilization, storage, purification and quality control including QlAsymphony, QlAcube and EZ1					
Diagnostic solutions <sup>(2)</sup>	Molecular testing solutions including infectious diseases, immune response and oncology					
PCR / Nucleic acid amplification	Research and applied PCR solutions and components					
Genomics / NGS	Universal genomics solutions including NGS library preparation and QIAGEN Digital Insights					
Other	Various products including protein biology, royalties, intellectual property revenues and freight charges					
1) Includes calca for diagnostic comple properation (DCD)						

<sup>1)</sup> Includes sales for diagnostic sample preparation (DSP).

<sup>2)</sup> Includes revenues for companion diagnostic co-development agreements.

<sup>3)</sup> QIAcuity digital PCR sales will not be disclosed on a quarterly basis in 2021.

# Sample technologies



Sample collection, stabilization and storage solutions



**Automated sample preparation** 



Manual sample preparation



**Quality control instruments** 

# QIAGEN

#### **Customers**

#### Life Sciences







Academic

c Pharma

Applied testing

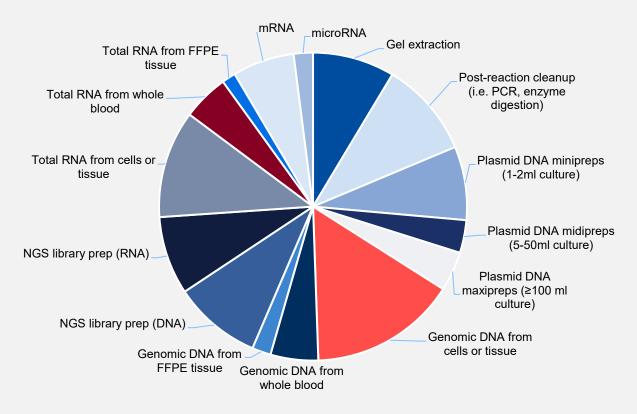
#### **Molecular Diagnostics**





# The first step in virtually any molecular biology laboratory process

#### QIAGEN holds leading products in the vast majority of applications



#### Sample preparation market by application



~70-75%

of QIAGEN sample technologies sales come from DNA applications

#### Sample technologies market

>1 million samples processed daily

>\$1 billion annually

~3-4% CER annual growth



<sup>\*</sup>Sample preparation method data from Percepta reports: The Life Science Dashboard – Nucleic Acid Purification (North America and Europe)

### Our Sample technologies are the foundation of QIAGEN





A portfolio that has grown to address the complete spectrum of processing biological samples

#### Selected biological samples

- Tissue
- Cells
- Blood
- Serum
- Plasma
- Urine

- Stool
- Saliva
- Other body fluids
- Bone
- Plants
- Soil



#### **Input demands**

Low / high-volume

Low-quantity

Tubes / plates

#### **Processing**

Manual

#### **Input demands**

Low-quantity

**High-quantity** 

Tubes / plates

#### **Automated**

Low-to

High-throughput



#### **Target analytes**

Genomic DNA

Plasmid DNA

cfDNA

mRNA, rRNA, miRNA

**Proteins** 

Circ. Tumor cells

### **Applications**

- Cloning
- DNA amplification
- Arrays
- Gene editing
- Epigenetic
- Cellular analytics

- Sequencing / NGS
- Liquid biopsy
- Micobiome
- Gene silencing
- Proteomics

>200,000

publications referencing QIAGEN sample prep

# Building on Sample Technologies solid leadership



#### **Upgrading key automation platforms**

**QIAcube Connect** 

Launched 2019



**EZ2 Connect** 

Launched 2021



**QIAsymphony Boost** 

In development



Over 300 kits

Any sample format

Comprehensive

 Any analyte (DNA, RNA, Proteins)

consumables portfolio

Low to high throughput

**QIAcube** 



EZ1



**QIAsymphony** 



Cumulative placements (at end 2021)

>10,000

>4,800

>3,000

2021 sales split – Sample technologies consumables



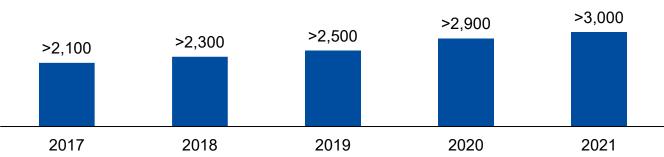
# SPOTLIGHT: QlAsymphony – Flagship platform for sample processing

Off-the-shelf solutions and customizable protocols to fit wide range of laboratory needs

Front-end automation solution for molecular testing

Regionalization strategy

- US: Focus on sample technologies
- Rest-of-world: Sample technologies and modular IVD assays
- 22 CE-IVD and 5 FDA-cleared assays



>3000 cumulative placements and counting...



# Diagnostic solutions





**Immune Response** 



Women's Health



**Infectious diseases** 



**Oncology and Precision Medicine** 

#### **Customers**

**Molecular Diagnostics** 





# Immune Response: Best-in-class IGRA test for latent tuburculosis

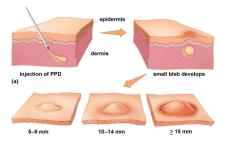


#### What is QuantiFERON?

QuantiFERON-TB Gold Plus (QFT-Plus) is a simple blood test that aids in the detection of Mycobacterium tuberculosis, the bacteria which causes tuberculosis (TB).

QFT-Plus is optimized with innovative tuberculosis-specific antigens that elicit both CD8+ and CD4+ T cell responses – enabling a more accurate assessment of cell-mediated immune response to TB infection.

#### **Tuberculin skin test (TST)**



- Manual placement, reading, data entry
- · Affected by BCG vaccine and NTM
- Two patient visits required
- Significant inter-reader variability
- · Poor surveillance tool
- · Often no quality control after training

#### **QuantiFERON-TB (QFT)**



- Can be fully automated
- · Highly specific
- Results with one patient visit
- No inter-reader variability
- · Electronic results
- Quality-assured laboratory test<sup>(1)</sup>

#### **Latent TB testing market**

>\$1
billion
annually

QIAGEN ~70-80% share IGRA tests

~25% of TB testing market has been converted from skin test



BCG – Bacillus Calmette-Guerin vaccine | NTM – Non-tuberculosis mycobacteria | (1) Not available in all markets

# A growing market demand for modern latent TB testing

# What is the difference between latent TB and active TB?

Latent TB infection (LTBI) can persist for weeks, months or years before developing into active disease. Although LTBI is not contagious, there is a ~10% average lifetime risk of it becoming active. According to the World Health Organization, up to 1/4 of the world's population is infected with latent TB.

#### Why is latent TB infection important?

Diagnosing LTBI, and preventive treatment, can significantly reduce the risk of disease, and prevent outbreaks from recent transmission. On a global level, achieving a significant reduction in the burden of TB cases cannot be achieved without also including the detection and treatment of LTBI (Figure (2).

For more info on latent TB testing visit: www.quantiferon.com



#### ~70 million latent TB tests per year across the world

Mass LTBI detection

Active and latent TB detection and treatment



The benefit of combating both active and latent TB infection.

LTBI - Latent TB infection

Q3 2022 Investor Resource Book

2015

800

400

# QuantiFERON offers fully automated workflows for low and high throughput testing



# **Enabling hands-free processing of QFT-TB Gold Plus**

Strong best-in-class market position



High performing assay: QFT TB Gold Plus (4<sup>th</sup> generation test)



Excellent automation: DiaSorin, Hamilton, Tecan



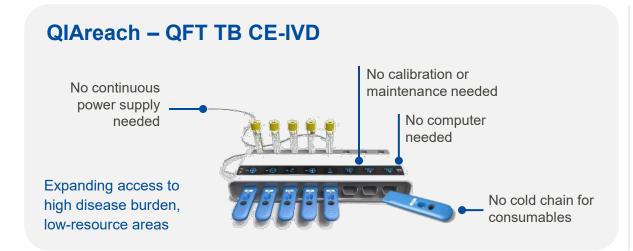
Wide menu: Embedded in DiaSorin menu (>130 tests)

#### DiaSorin LIASON XS & XL

>8,000 systems Worldwide

#### **QuantiFERON differentiation**

- Full automation capability
- Highly specific
- No inter-reader variability
- Electronic results
- Quality-assured laboratory test





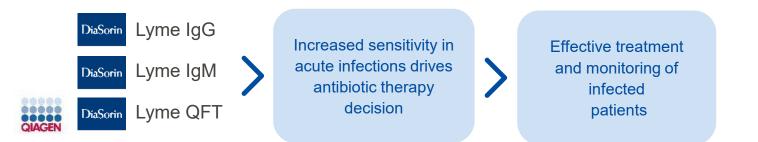
# QuantiFERON Lyme: Combination of tests allowing a new level of detection



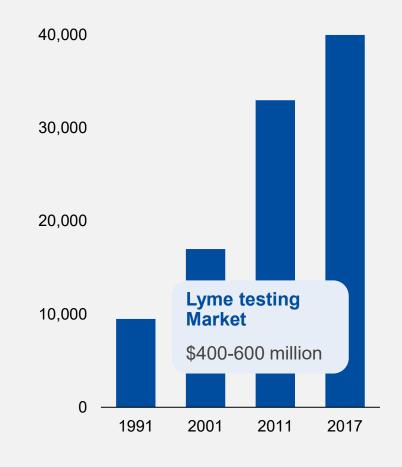
#### **CE-IVD** test launched in 2021



#### Combination of tests addresses urgent need for early detection



#### Rising occurrence of Lyme disease



<sup>(1)</sup>https://ecdc.europa.eu/sites/portal/files/media/en/healthtopics/vectors/world-health-day-2014/Documents/factsheet-lyme-borreliosis.pdf (2)https://www.cdc.gov/lyme/datasurveillance/index.html 3 EDMA Market Data & proprietary market intelligence 4 US healthcare insurance reimbursement data

## Infectious diseases: New generation of PCR technology for urgent needs

#### **Core / Hospital laboratories**



#### **Market opportunity**

>\$3 billion

~+7-9% CAGR



NeuMoDx

### Hospital and reference lab networks

#### Requirements:

- Full automation
- Fast time to result
- Random access and continuous loading
- Longer therapeutic window
- Chronic conditions
- High volume / Low-cost
- Breadth of menu
- Low plex / Targeted

#### **Near-patient clinical laboratories**

Community hospitals and reference lab "outreach" centers

#### Requirements:

- Fast turnaround time
- Shorter care window
- Acute conditions
- Syndromic / comprehensive tests
- · CLIA status (medium / waived)
- · Breadth of menu
- Workflow
- · Low volume / Medium cost



QIAstat-Dx



~+15% CAGR



# QlAstat-Dx: Capturing opportunities in the rapidly growing market of syndromic testing

#### What is syndromic testing?

Syndromic testing is a new approach to molecular diagnostic testing which uses a single test to look for multiple viral, bacterial or fungal infections.

Sets of common signs and symptoms are called 'syndromes', from the Greek word for concurrence.

Testing multiple pathogens in a single test reaction is known as multiplexing. Multiplex molecular syndromic testing gives answers that are more accurate, comprehensive, and actionable for real-life decisions in critical care.

Several studies demonstrate how using panels to detect multiple pathogens at once is associated with both improvements in clinical practice and better outcomes, from increased diagnostic yield, greater diagnostic accuracy, to less use of resources, antibiotic use and reduced overall length of stay.

Diagnostic solutions

References: Center for Disease Control and Prevention 2018-2019 flu season https://www.cdc.gov/flu/about/burden/preliminary-in-season-estimates.htm

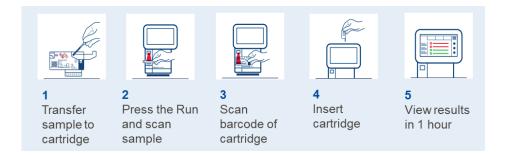


## QIAstat-Dx: Reliable, fast and cost-effective diagnosis of complex syndromes





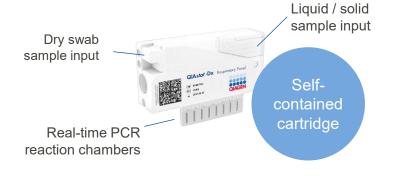
#### Unrivaled ease-of-use



## More than a "yes / no" answer – access deep clinical insights







#### **Operational module**

Intuitive and simple graphical user interface

#### **Analytical modules**

- Small footprint with low maintenance requirements
- Up to 4 modules run on one operational module

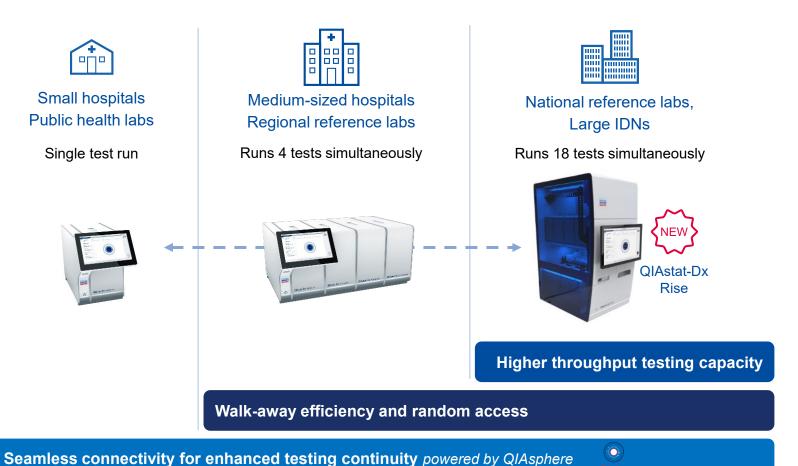


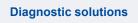


### QIAstat-Dx: Expanding menu in U.S. and Europe

Unrivalled ease-of-use, no sample preparation required

#### Broadening the addressable market with QIAstat-Dx Rise







#### **Growing test menu**

	CE-IVD	FDA
Respiratory	//	//
Respiratory SARS CoV-2	//	//
Respiratory 4plex	//	//
Gastrointestinal	//	/
Meningitis	//	2022
Viral Vesicular (incl. Monkeypox)		RUO
Blood Culture Identification (BCID)	2022	2022
V2 Respiratory SARS CoV-2 (faster results, updated targets)	2023	2023
Complicated urinary tract infection (cUTI)	2023	2023
Pneumonia	2023	2023
Submitted ✓ Year of planned	Complete submission	

### QIAstat-Dx: Novel syndromic testing system delivering unique value



	B. Martin Bankon Martin					
	QIAstat-Dx (4 scalable slots used for comparison)	G QIAstat-Dx - Rise	Biofire FilmArray (1 slot)	Biofire Torch (12 slots)	Luminex ePlex (12 slots)	Genmark Verigene (1 slot)
Throughput (in 8 hours)	28	56	9	108	60	4
Throughput per slot (in 8 hours)	7		9	9	5	4
Sound emission < 60 dB	Yes	Yes	No 🛑	No 🛑	Yes	Yes
Integrated CPU and Reader	Yes	Yes	No 🛑	Yes	Yes	No 🛑
Hands-on time (in minutes)	< 1		4	4	< 1	10
Reagent preparation required	No 🛑	No 🛑	Yes 🛑	Yes 🛑	No 🛑	Yes 🛑
Respiratory direct swab (CE-IVD)	Yes		No 🛑	No 🛑	No 🛑	No 🛑
Modular assay design (allows flexibility to adjust for reimbursement)	Yes		No 🛑	No 🛑	No 🛑	No 🛑
Quantified results	Yes	Yes	No 🛑	No 🛑	No 🛑	No 🛑
Infectious disease and oncology platform capabilities	Yes		No 🛑	No 🛑	No 🛑	No 🛑

Source: QIAGEN estimates based on industry data

## NeuMoDx: Bringing simplicity of clinical chemistry to integrated PCR testing



#### **New generation of integrated PCR**

Two scalable platforms: 96 and 288

Fully acquired in September 2020

Broad CE-IVD menu

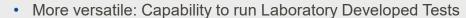
Investing into U.S. menu expansion



#### **NeuMoDx differentiation**







• Convenient: Room temperature stable reagents

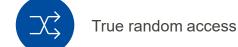
Selfcontained cartridge



High throughput



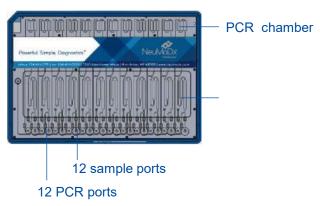




\$ Cost efficiency

#### Fully integrated microfluidic design

- No moving parts
- Containment of all waste
- Fewer plastic disposibles



LDTs – Laboratory-developed tests

## NeuMoDx: A unique integrated PCR testing platform in >\$3 billion market opportunity



					Roche Cobas			
	NeuMoDx 288	NeuMoDx 96	Hologic Panther	Hologic Panther Fusion	6800 (+ Omni LDT channel)	Roche Cobas 8800	Beckman Veris (Discontinued)	Abott Alinity M
Volume in '00,000s cm <sup>3</sup>	38	16	18	27	81	120	38	48
On-board analytes	30	20	4	32	12	12	20	20
True random access	Yes	Yes	Only 4 assays	PCR or TMA	Random batch	Random batch	No 🛑	Random batch
Random access menu breadth	30	20	4	32	3	3	No 🛑	20
Continuous loading of IVD + LDTs	Yes	Yes	No 🛑	Yes	No 🛑	No 🛑	No 🛑	No 🛑
Time to first result (minutes)	40	40	150-210	150-210	210	210	90	115
On-board sample capacity	288	96	120	120	350	350	48	150
Throughput (in 8 hours)	360	150	275	335	384	960	150	300
LDT capabilities	Yes	Yes	No 🛑	Yes (PCR only)	Yes	No	No 🛑	No 🛑
Reagent reconstitution required	No 🛑	No 🛑	Yes 🌘	Yes	No 🛑	No 🛑	No 🛑	No 🛑

Source: QIAGEN estimates based on industry data. Benchmark based on NeuMoDx 288 system.

## Oncology and Precision Medicine: QIAGEN as a partner of choice



CDx and LDT Market
>\$1.1 billion annually
~15% CAGR
Currently mostly LDT's



#### Day One Lab Readiness program

Program designed to further accelerate the access of cancer patients to QIAGEN's companion diagnostic products following regulatory approvals of drugs and their associated tests.

It allows our partners to prepare for newly launched tests with pre-approval of workflow implementation, training, assay verification, forecasting, medical communication and reimbursement to ensure immediate readiness upon launch.









CDx - Companion diagnostic

## Oncology and Precision Medicine: QIAGEN as a partner of choice



#### **QIAGEN** molecular diagnostic development

- (26) IVD development programs either in pre-clinical or clinical phase
- (20) CDx (Pharma sponsored) programs in clinical development
- 5 IVD clinical studies in China for internal IVD and Pharma-sponsored CDx development
- 5 Immuno-oncology CDx development programs in the clinic
- 2 NGS IO GEP development programs

**KRAS** 

2012

Colorectal

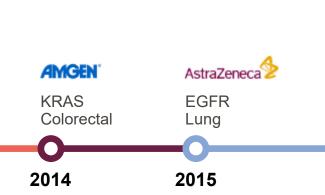
Boehringer

Ingelheim

**EGFR** 

Lung

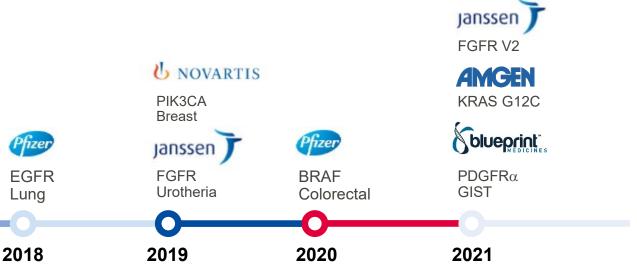
2013



#### 2021 sales: ~\$80 million

- ~50% Pharma codevelopment revenues
- ~50% Sales of CDx assay portfolio





# Women's Health: Prenatal testing and detection of sexually transmitted diseases

#### **Cervical cancer screening**

**Digene** – Comprehensive range of human papillomavirus DNA test

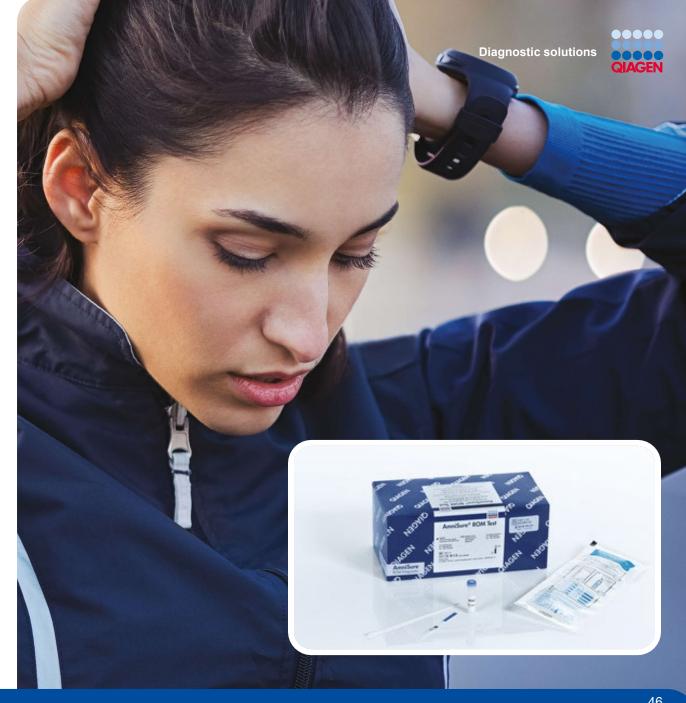
#### Maternal / Fetal testing

**AmniSure** – For the detection of PAMG-1 in amniotic fluid of pregnant women

**PartoSure** – To aid in the diagnosis of preterm labor

#### **Sexually Transmitted Infections (STI) testing**

Range of STI tests, including tests for detection of Chlamydia trachomatis (CT) and Neisseria gonorrhoeae (NG) infections



### PCR / Nucleic Acid amplification





**Digital PCR - QIAcuity** 



**Customized arrays** 



**PCR reagents and instrumentation** 

#### **Customers**

#### Life Sciences







Academic

Pharma

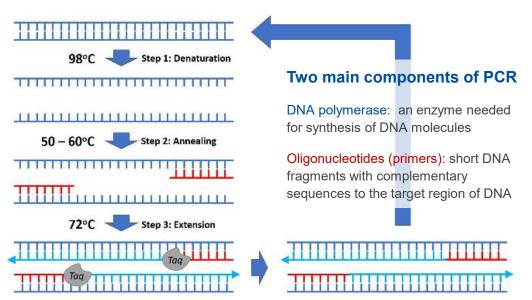
Applied testing

## PCR: One of the most widely used tools in molecular biology

#### What is polymerase chain reaction (PCR)?

The process of replicating a specific DNA fragment though a series of thermal cycling to generate thousands to millions of copies.

## Originally developed in 1983 by the American biochemist Kary Mullis.



Unlimited customization of arrays through QIAGEN's GeneGlobe portal

#### What is a PCR array?

A PCR array or PCR panel is a set of primers compiled for a collection of targeted genes of a specific theme or biological pathway. They are used in quantitative PCR for gene expression analysis and usually delivered in a 96-or 384-well plate format.



### Digital PCR: A new level of precision and sensitivity



#### What is digital PCR?

Digital PCR is a highly accurate approach for nucleic acid detection and quantification.

#### The basic principle is the same as other PCR technologies

Replicating a specific DNA fragment though a series of thermal cycling to generate copies.

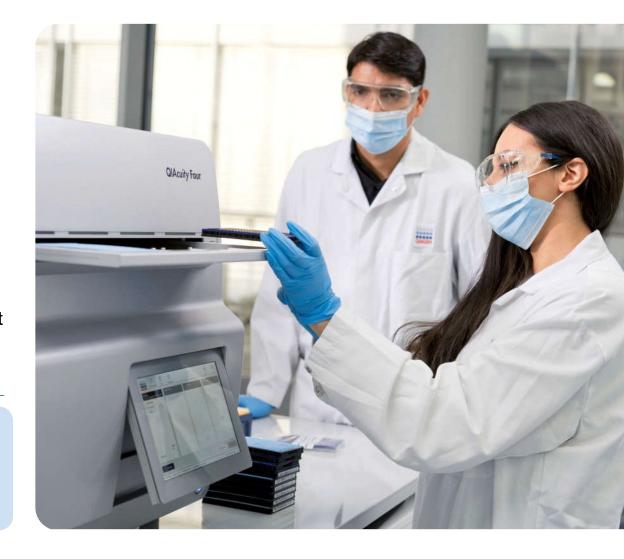
#### The difference

Each DNA molecule is partitioned into individual PCR reactions and amplified separately. This means that it is possible to measure absolute numbers of DNA molecules, effectively counting them. Digital PCR does not rely on a standard curve for sample target quantification. Eliminating the reliance on a standard curve greatly reduces error and improves precision.

#### Select applications

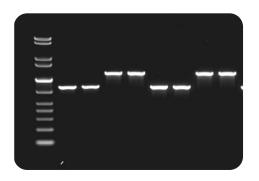
- Copy number variation
- Rare mutation detection
- Gene expression

- · Biopharma QC and quantification
- Microbial pathogen detection
- NGS validation GMO detection



### Digital PCR: The latest generation of PCR technology





1<sup>st</sup> generation

Conventional PCR

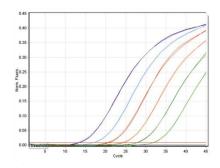
#### **Qualitative**

Technically simple

Multiplexing capabilities

**End-point detection** 

Low cost



2<sup>nd</sup> generation

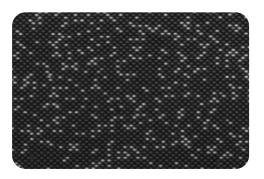
Quantitative RT-PCR (qPCR)

#### **Relative quantification**

High accuracy, sensitivity and specificity

Rapid cycling and throughput

Non-specific amplification



3<sup>rd</sup> generation

Digital PCR (dPCR)

#### **Absolute quantification**

No standard curves

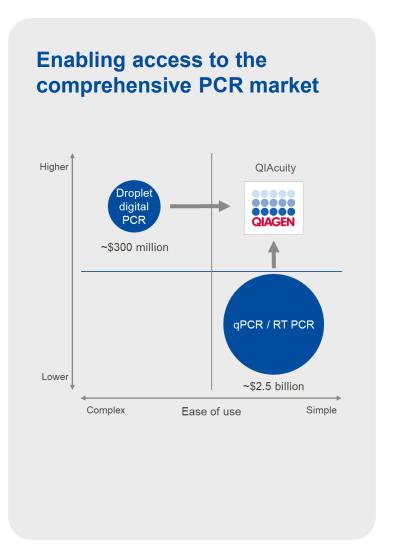
Higher precision and sensitivity

Low sensitivity to inhibitors

**End-point detection** 

### Leveraging novel technology with QIAcuity digital PCR





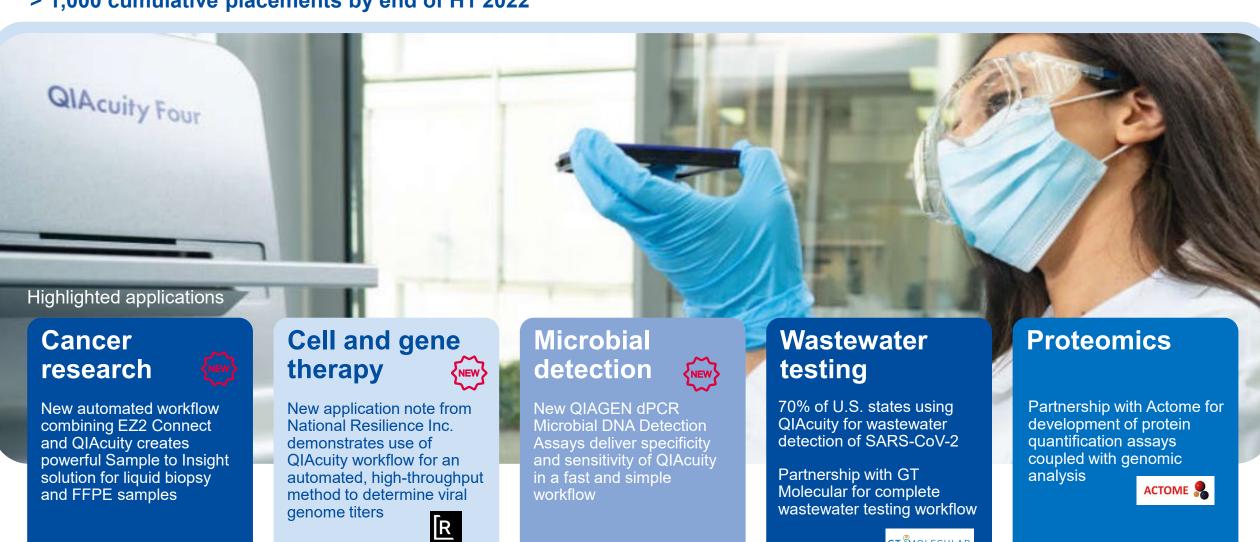




### Five pillars: QIAcuity digital PCR continuing to expand applications



> 1,000 cumulative placements by end of H1 2022



Q3 2022 Investor Resource Book

**GT**MOLECULAR

## PCR enzymes, reagents, and arrays for research workflows



## QuantiNova: Automatable, ultrafast kits with in-process controlled safety measures



- PCR or 1-step & 2-step RT-PCR
- SYBR Green or Probe based detection
- Singleplex or multiplex options
- Use with custom primers or pre-designed assays, arrays, panels

	Outring to	or popular	OUTHER CHOCKEN	o zeleti Ordino	to transcription kin	Coor Hitcher	o Reported	Sto KROCKI
Starting material	cDNA or gDNA			RNA				DNA/RNA
Use in quantitative RT-PCR	2-Step			cDNA synthesis	1-Step			'
Detection chemistry	SYBR® Green I	Probes	Probes		SYBR Green I	Probes	Probes	Probes
Multiplexing		2-plex	5-plex			2-plex	5-plex	4-plex
Internal control provided					Internal Control RNA			IC DNA/ RNA & assay
Visual pipetting control	•	•	•		•	•	•	•
gDNA removal				•		•		
Room temperature set-up	•	•	•		•	•	•	•

For more info on QuantiNova visit https://go.qiagen.com/QuantiNovaKits

## QuantiNova: Automatable, ultrafast kits with in-process controlled safety measures

- Expert-designed panels target the most relevant genes
- Simple procedure enables routine use with any real-time PCR instrument
- Complimentary online tools make data analysis quick and easy



## Customized arrays: GeneGlobe design and analysis portal for biological content



#### A world of genes, pathways and biological targets

Find NGS, PCR and functional analysis assays in the relevant scientific context. Design custom products with full flexibility on target regions, configuration and format. Analyze data with ready-to-use NGS and PCR analysis pipelines, and plan follow-up studies to further explore results.



10 years of experience



NGS and PCR applications<sup>(1)</sup>



>10,000 users



>10 million possible custom arrays



>15,000 publications included





SEARCH / BROWSE

Browse the broadest portfolio of NGS, PCR and functional analysis assays and oligos with an intuitive and streamlined navigation



#### KNOWLEDGE HUB

Explore our knowledge hub filled with gene and pathway information, access to product handbooks and resources, and reading rooms on special topics



#### CUSTOM PRODUCT BUILDER

Create custom products tailored to your research question using our comprehensive set of redesigned custom product builders



DATA ANALYSIS CENTER

Analyze your NGS or PCR data using our complimentary suite of online analysis tools

(1) Millions of assays for digital PCR applications

### Genomics / NGS





**Universal NGS consumables** 



Illumina collaboration NGS assays



**Bioinformatics solutions** 

#### **Customers**

#### Life Sciences







Academic

Pharma

Applied testing

#### **Molecular Diagnostics**



## Universal NGS: QIAseq solutions providing high-performance chemistry



Target enrichment and streamlined library preparation leveraging leading sample preparation and bioinformatics

#### **QIAGEN NGS differentiation**

Superior technology performance for target enrichment

Gold standard RNAseq products for miRNA and RNA removal

Integrated with leading sample preparation and bioinformatics

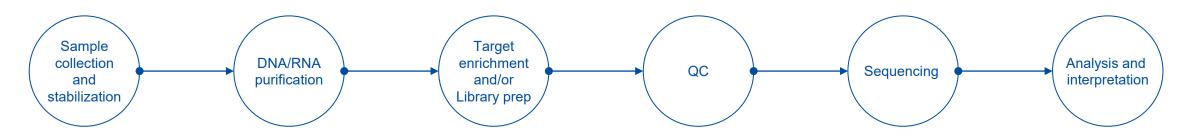


### NGS research market

>\$800m market

>15% CAGR

Over 1 million cancer samples analyzed



QIAGEN sample preparation

QIAseq Universal NGS solutions
Compatible with any sequencer

QIAGEN Digital Insights

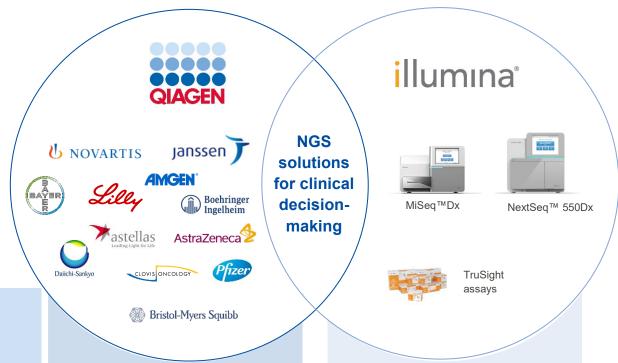
Compatible with any sequencing data

## Partnership to accelerate use of NGS in clinical decision-making



## QIAGEN to develop and market NGS IVD kits (including CDx assays) for use on Illumina systems

- Integrated with QIAGEN sample technologies, NGS IVD kits and bioinformatics solutions for "Sample to Insight" experience
- Rights for use of Illumina's clinical sequencers
- Illumina to sell sequencers and related sequencing consumables



#### **Initial focus area in Cancer**

Future options to expand into other key IVD areas



Cancer (Genomic

profiling)



Infectious diseases



Autoimmune diseases



Cardiology Hereditary diseases



Inflammatory diseases

- Leader in sample technologies, NGS assays, bioinformatics
- Strong global commercial presence
- >25 pharma CDx partnerships

- Leadership in NGS platform technology
- Extensive global installed base
- Significant platform R&D investments

IVD – In-vitro diagnostic

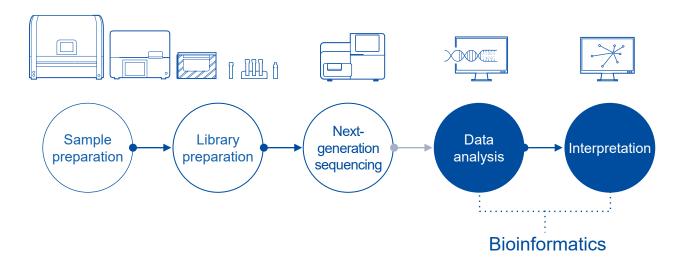
CDx – Companion diagnostics

NGS – Next generation sequencing

# QIAGEN Digital Insights: Turning sequencing data into clinically actionable information

Bioinformatics [baɪ.oʊˌɪnfərˈmætɪks] is an interdisciplinary field that develops methods and software tools for understanding biological data. As an interdisciplinary field of science, bioinformatics combines biology, computer science, information engineering, mathematics and statistics to analyze and interpret biological data.

Reference: wikipedia







## The partner of choice for actionable insights from molecular and real-world data



#### Multi-year partnership examples



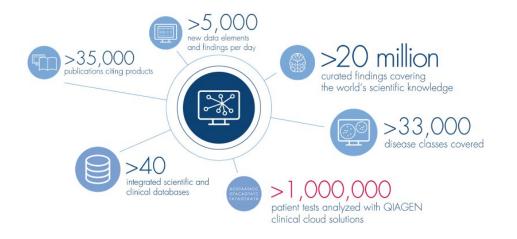
Preferred vendor for Genomics England to analyze 5 million genomes in 5 years for genetic disorders

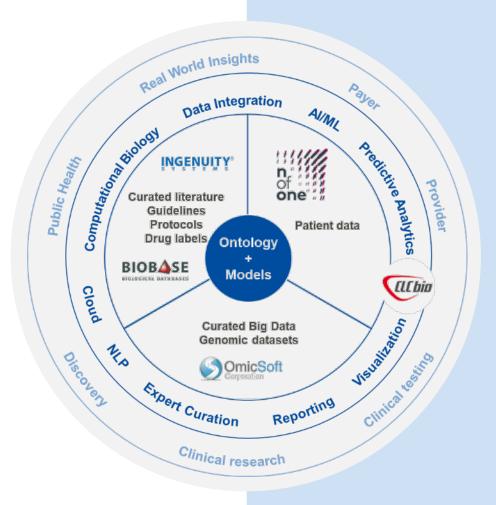


Deliver custom NGS patient data interpretation for genetic markers for predispositions



Molecular oncology and oncogenetic screening data in Japan's landmark program with NGS testing





### Discovery Insights: Serving the research community



#### **Example: Analyzing gene expression data from Sample to Insight**

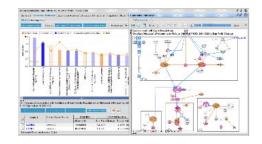


Biological sample









### Sample to data

NGS library prep Sequencing

- Platform and Assay agnostic
- Whole transcriptome, Single Cell experiments

### Data to information

Normalization and QC Read mapping Gene expression

- QIAGEN CLC Genomics Workbench, Server and Cloud Engine
- Per sample Analysis Portal, BaseSpace Integration

## Information to knowledge

Data Integration
Metadata exploration
Differential expression

- QIAGEN OmicSoft Server and Land Explorer
- Curated Experiments (OncoLand, DiseaseLand, GeneticsLand, Single Cell Land)

## Knowledge to insight

Interpretation
Pathway analysis

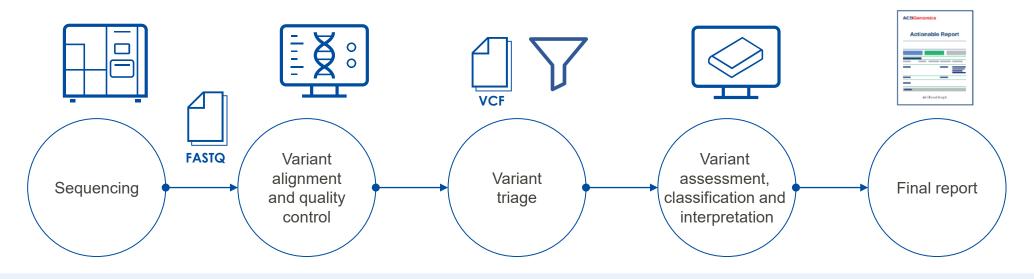
 QIAGEN Ingenuity Pathway Analysis



### Clinical Insights: Serving the diagnostic laboratories



#### Software platform for scalable, standardized and reproducible variant interpretation



**QCI PRODUCTS** 

#### **ONCOLOGY**

Clinical Testing Labs
Clinical Research Workflows
Clinical Research databases

Freedom of choice Freedom of choice Freedom of choice

## Precision Insights- QCI Interpret –QCI Interpret One QCI Translational

COSMIC- HSMD

#### **HEREDITARY**

Clinical Testing Labs
Clinical Research Workflows
Clinical Research databases

Freedom of choice Freedom of choice Freedom of choice

# QCI PRODUCTS QCI Interpret HGMD





Sustainability at QIAGEN



### Committed to building a sustainable business

We have set ambitious goals to contribute to a more sustainable future – never compromising on our high quality standards



## By 2050: Carbon neutral

2030 interim goal: 40% reduction in Scope 1 and 2, 10% reduction in Scope 3

9% reduction

in plastic transport packaging in 2022

### Environment

Practice sustainability and protect global ecosystems



Goal: 35%

women in leadership in 2022

2021 level: 33%

Goal: Maintain our ratings with Bloomberg Gender Equality Index and the Human Rights Campaign



100%

Suppliers committed to sustainable improvement goals by 2023

100%

Compliance training for all new employees

#### Social

Foster diversity, inclusion and access to healthcare

#### Governance

Ensure responsible corporate practices and compliance



## Environmental protection is an issue of continued and committed concern for QIAGEN



#### **Eco-friendly transportation**

Conversion of air freight to sea freight saving ~1.164 tons/year of CO<sub>2</sub> since 2018

Reduction of Scope 1 & 2 CO<sub>2</sub> emissions by 9.1% in 2020

Reduction of business travel CO<sub>2</sub> emissions by 81.1% below the base year in 2020

Reduction of impact of employee commuting

- Installed charging stations for electric cars and bikes
- Company bike program at select sites
- Provision of discounted train and bus tickets to encourage the use of public transportation
- CO<sub>2</sub> emission are a key deciding factor in the purchase of new company cars



#### Site energy conservation

Initiated energy extraction from co-generators, better insulation, heat recovery and installation of intelligent building systems

- Installing solar panels
- Purchasing green energy attributed certificates
- Purchasing high-quality carbon credits

E.g. in 2020, installed LED lighting at our Germantown facility = expected to save 300,000 kwh per year







## Integrating sustainability throughout the value chain





#### **Examples of sustainability in product design**

- Avoiding materials that cause a lot of damage when they are mined, cannot be recycled or do not decompose
- Improving repairability, longevity, and allowing for reuse
- Designing products to use less energy and produce less waste for customers
- Optimizing recycling by making it easy to separate materials

### QIAwave: New eco-friendly versions of best-selling kits





#### QIAwave RNA Mini Kit / QIAwave DNA Blood & Tissue Kit / QIAwave Plasmid Miniprep Kit





Up to **63%** less plastic

Up to **42%** less cardboard

- Waste tubes made from 100% post-consumer recycled plastic
- 86% reduction in concentrated **buffers plastic materials**
- No printed protocols scan QR code inside box for download



### Plastic footprint reduction





#### Reduce

Reduced the thickness of blister film in packaging equating to a 2800 kg annual reduction

Reduced the number of gel packs used equating a 33.4 ton annual reduction



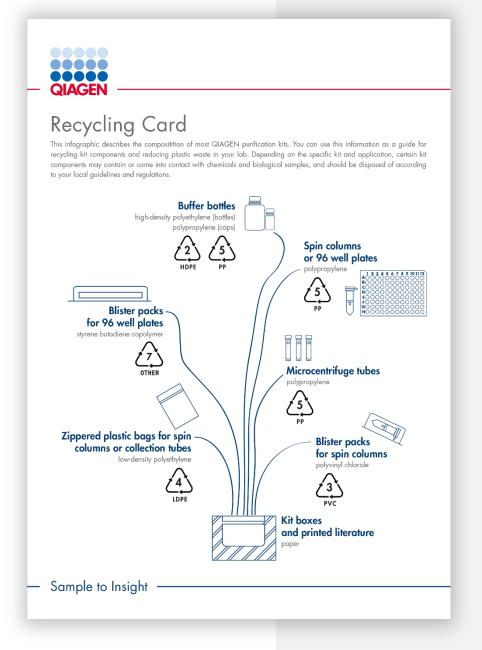
#### Replace

Replaced packaging with sustainable material for cold shipments in North America and Canada – reducing our plastic footprint by > 14 tons per year



#### **Recycle**

Recycling cards inform our customers of kit composition and provides information on safe recycling according to local guidelines and regulations



## Conducting business in a responsible way through ethical foundations

#### Respecting human rights and legally compliant business behavior



#### **Supply Chain**

As part of our supplier selection process, we assess the suppliers' policy regarding human rights issues. In addition, first-tier suppliers must confirm REACH, RoHS and SEC compliance as appropriate. Violations against human rights in our supply chain inherits reputational as well as legal risks for QIAGEN. Supplier audits are conducted if noncompliance is suspected.



#### **Conflict minerals**

Certain minerals (known as "conflict minerals") have been linked with human rights abuses in the Democratic Republic of Congo and other conflict zones. We have performed an extensive inquiry into the company's supply chain to ensure that no conflict minerals from the Democratic Republic of Congo or adjoining countries are used in the company's laboratory instruments.





### Deepening commitment to diversity and inclusion



#### Diverse teams strengthen our organization through the variety of ideas, perspectives and approaches



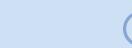
## Executive Council on Equal Opportunity (ECEO)

Created to drive change within QIAGEN around diversity and inclusion



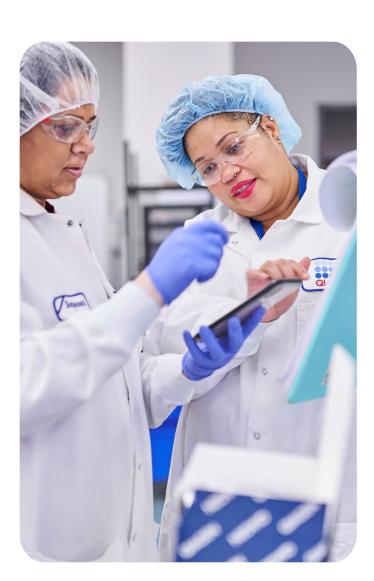
## Diversity and Inclusion Ambassador Program

>25 QIAGENers from around the world championing diversity and inclusion across global sites



## Ongoing strategic initiative to increase gender diversity

Increased women in leadership roles from 29% in 2018 to 32% by end-2020



We value an environment where all individuals have equal opportunity to grow and contribute









>6,000
passionate QIAGENers around the world are employed by QIAGEN

People from all functions working together to achieve our vision:
Making improvements in life possible







# We have a culture of empowerment driven by achieving targets



- Giving teams at all levels greater influence
- Bringing decisions closer to customers



- Appropriately balance opportunity and risk
- Training teams on PREmortem analysis



- Foster a stronger culture of ownership
- · Increase diversity in global workforce





















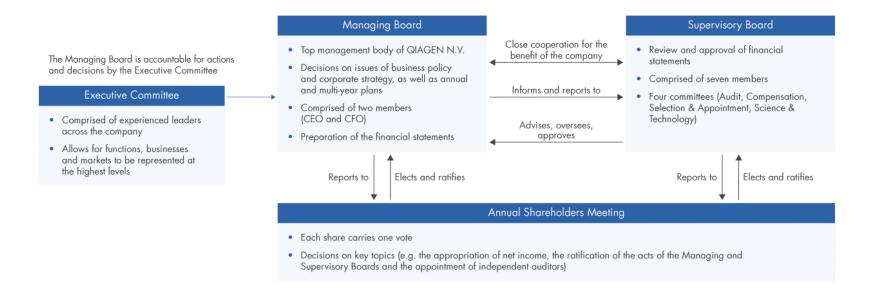


# QIAGEN operates under a two-tier corporate structure

QIAGEN has established an Executive Committee (EC) – which comprises the CEO, the CFO and certain experienced leaders.

Under leadership of the CEO, the members of the Executive Committee share powers and responsibilities for operational management.

Under Dutch Law, QIAGEN's Managing Board is accountable for the actions and decisions
of the EC and has ultimate responsibility for external reporting.





## **Executive Committee / Managing Board**





Thierry Bernard
Chief Executive Officer

Joined QIAGEN in February 2015 to lead QIAGEN's growing presence in Molecular Diagnostics, the application of Sample to Insight solutions for molecular testing in human healthcare. He was named Chief Executive Officer in March 2020, after having previously served in this role on an interim basis. Mr. Bernard previously worked at bioMérieux, where he served in roles of increasing responsibility for 15 years, most recently as Corporate Vice President, Global Commercial Operations, Investor Relations and the Greater China Region. Prior to joining bioMérieux, he served in management roles in multiple international environments. Mr. Bernard was appointed a member of the Board of Directors of T2 BioSystems in 2020. He has earned degrees from Sciences Po (Paris), Harvard Business School, London School of Economics and the College of Europe and is a member of French Foreign Trade Advisors.



Roland Sackers
Chief Financial Officer

Joined QIAGEN 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 Masters Degree in Business Administration (Diplom-Kaufmann) from the University of Münster, Germany. He is a board member of the industry association BIO Deutschland. Mr. Sackers has been a member of the Supervisory Board and Chairman of the Audit Committee of Evotec SE since 2019

### **Executive Committee**





**Dr. Thomas Schweins**Sr. Vice President
Head of Life Science Business Area

Joined QIAGEN in 2004 as Vice President Corporate Strategy and was appointed Vice President Marketing & Strategy in 2005, where he was deeply involved in managing the global business toward Life Science customers. Prior to taking over leadership of the Life Science Business Area, he assumed responsibility for Human Resources, Dr. Schweins came to QIAGEN from The Boston Consulting Group. He previously worked as Technology Manager, and later as an Assistant to the Management Board at Hoechst / Aventis. He earned an M.Sc. Degree in Biochemistry from the University of Hanover. He obtained his Ph.D. at the Max Planck Society and an M.Sc. from the University of Southern California in Los Angeles, where he studied Business Administration and Chemistry.



Jean-Pascal Viola
Sr. Vice President
Head of Molecular Dx Bus. Area

Joined QIAGEN in 2005 and worked in increasingly responsible roles until he was named Senior Vice President, Molecular Diagnostics Business Area and Corporate Business Development, in 2015. In October 2019, Mr. Viola was appointed member of the Executive Committee. Among other business transactions, his track record includes the acquisitions of Cellestis. Corbett Life Science. DxS and Enzymatics. Prior to joining QIAGEN, Mr. Viola served as President and CEO of Nextal Biotechnologies Inc., a provider of technologies for protein crystallization, and when QIAGEN acquired Nextal in 2005 he joined as Director of Protein Crystallization. Moving to Business Development in 2007, Mr. Viola led efforts in Asia-Pacific, the Americas, Global M&A and Corporate Ventures. He completed a Bachelor of Science in Biochemistry from the University of Montreal, Canada.



**Dr. Jonathan Sheldon**Sr. Vice President
Digital Insights Business Area

Joined QIAGEN in 2018 as Senior Vice President, Bioinformatics Business Area. Dr. Sheldon came to QIAGEN from Oracle, where he was Global Vice President leading Oracle's Healthcare business in the Health Sciences Global Business Unit. Previously, he established the bioinformatics group and served as Head of Bioinformatics at Roche (UK) Pharmaceuticals. He serves on the Board of Directors of the Drug Information Association (DIA). He received his B.Sc. in Biochemistry and Molecular Biology from the University of Manchester, and his Ph.D. in Biochemistry and Molecular Biology from the University of Cambridge.

### **Executive Committee**





**Stephany Foster**Sr. Vice President
Head of HR

Joined QIAGEN in 2005 as Head of Global Internal Audit and was most recently Vice President, Head of Human Resources. Ms. Foster was also member of the NAELT (North America Executive Leadership Team) and steers the Diversity and Inclusion program at QIAGEN. She was named to her current role in October 2019. Prior to joining QIAGEN, Stephany Foster worked in internal audit at Morgan Franklin and Independence Air. She started her career at PricewaterhouseCoopers, specializing in Sarbanes Oxley Auditing. Ms. Foster has a master's degree in Accounting from the University of Notre Dame and is a Certified Public Accountant (CPA), a Certified Internal and Information Systems Auditor (CIA / CISA) and Certified Fraud Examiner (CFE).



Antonio M. Santos
Sr. Vice President
Head of Global Operations

Antonio M. Santos joined QIAGEN in April 2022 as Senior Vice President, Global Operations, and a member of the Executive Committee, Mr. Santos has more than 25 years of experience in manufacturing diagnostics and medical devices. Prior to joining QIAGEN, he was Senior Vice President, Americas Operations & Global Third Party Products, at bioMérieux in St. Louis, Missouri, where he oversaw since 2013 all manufacturing and supply operations in the Americas. He has worked in international roles in China, Europe and the U.S., and previously served as Vice President Operations at Reliable Biopharmaceutical in the U.S. and at Hovione Pharmasciencia in Portugal, China and the U.S. After studying chemical engineering at the Nova University of Lisbon, School of Science and Technology, he earned an MBA at Rutgers University

### **Supervisory Board**





Lawrence A. Rosen Chair of the Supervisory Board

Joined the Supervisory Board in 2013 and was appointed Chair in 2020. He is Chair of the Audit Committee and Chair of the Nomination and ESG Committee, in addition to being a member of the Compensation and Human Resources Committee. He was previously a member of the Board of Management and Chief Financial Officer of Deutsche Post DHL from 2009 to 2016. Prior to this role. Mr. Rosen served as Chief Financial Officer of Fresenius Medical Care AG & Co. KGaA in Germany from 2003 to 2009, and earlier served as Senior Vice President and Treasurer of Aventis SA in Strasbourg, France. From 1984 to 2000. Mr. Rosen holds a Bachelor's degree in Business Administration from the State University of New York and an M.B.A. from the University of Michigan.



**Dr. Metin Colpan**Supervisory Director

He is a co-founder of QIAGEN, its first Chief Executive Officer and a Managing Director from 1985 to 2003. Dr. Colpan has been a member of the Supervisory Board since 2004 and has served as Chair of the Science and Technology Committee since 2014, and a member of the Nomination and ESG Committee since 2015. He obtained his Ph.D. and Master of Science degree 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 Dusseldorf. He has had wide experience in separation techniques particularly in the separation and purification of nucleic acids, and has many patents in the field. Dr. Colpan serves as a Supervisory Board member of the privatelyheld companies CGR GmbH in Mettmann, Germany, and Heilpflanzenwohl AG in Baar, Germany.

## **Supervisory Board**





Thomas Ebeling
Supervisory Director

Joined the Supervisory Board in February 2021. Mr. Ebeling has been an advisor in recent years to various businesses after having served as the CEO of the publicly-listed German media group ProSiebenSat.1 Media from 2009 to 2018. Prior to that, he worked for the global healthcare company Novartis from 1997 to 2008, including roles as CEO of Novartis Pharmaceuticals and also as CEO of Novartis Consumer Health. He began his career in 1987 and held various positions in marketing and sales in the consumer goods industry before joining Novartis. He has a degree in psychology from the University of Hamburg, has previously served on the Supervisory Boards of Bayer AG and Lonza AG.



**Dr. Toralf Haag**Supervisory Director

Dr. Toralf Haag joined the Supervisory Board and the Audit Committee in January 2021. He has served since October 2018 as Chairman of the Corporate Board of Management of Voith GmbH & Co. KGaA in Germany, a global technology company with more than EUR 4 billion in annual sales and over 19,000 employees. Before joining Voith in October 2016 as Chief Financial Officer, Dr. Haag served for more than 11 years as CFO and Member of the Executive Committee of Lonza Group AG. He began his career in 1994 as the personal assistant to the CEO of Thyssen Handelsunion AG after earning a degree in Business Administration from the University of Augsburg and a Ph.D. at the University of Kiel



**Dr. Eva Pisa**Supervisory Director

Dr. Eva Pisa joined the Supervisory board in 2022. She serves as an advisor to life science and diagnostic companies after having served in various senior leadership positions at Roche Diagnostics International from 2007-2020. During her tenure, the Roche cobas 6800 / 8800 System was developed and launched. She most recently served as Senior Vice President at Roche Centralized and POC Solutions, where she was responsible for Clinical Chemistry, Endocrinology and Custom Biotech (B2B business). Prior to joining Roche, she was the CEO of Sangtec Molecular Diagnostics AB, a Swedish molecular diagnostic start-up, from 2001-2007 that was acquired by Cepheid (now part of Danaher) and specialized in infectious diseases affecting immunecompromised patients. She does not serve on the Boards of any other publicly-listed company. Dr. Pisa holds a Ph.D. from the Karolinska Institute in Sweden and an MBA from Heriot-Watt University in Scotland.

## **Supervisory Board**





**Prof. Dr. Elaine Mardis**Supervisory Director

Joined the Supervisory Board in 2014. She is a member of the Science and Technology Committee and the Compensation and Human Resources Committee. Prof. Dr. Mardis is the Co-Executive Director of the Institute for Genomic Medicine at Nationwide Children's Hospital in Columbus, Ohio. She is a Professor of Pediatrics at the Ohio State University College of Medicine with research interests in the application of genomic technologies to improving the understanding of human disease and toward improving the precision of medical diagnosis, prognosis and treatment. She 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. She is an elected member of the U.S. National Academy of Medicine



**Elisabeth E. Tallett**Supervisory Director

Joined the Supervisory Board, as well as the Audit Committee and Compensation Committee, in 2011. She is currently a member of the Nomination & ESG Committee and the Audit Committee. Since 2016, she has served as Chair of the Compensation and Human Resources Committee. She was a Principal of Hunter Partners, LLC, a management company for early to mid-stage pharmaceutical, biotechnology and medical device companies, from 2002 to 2015. She 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 Elevance Health, Inc. (where she is currently Chair). She was a founding board member of the Biotechnology Council of New Jersey and is a Trustee of Solebury School in Pennsylvania.



**Prof. Dr. Ross L. Levine** Supervisory Director

Joined the Supervisory Board and its Science and Technology Committee in 2016. He is a physicianscientist focused on researching and treating blood and bone marrow cancers. He currently serves as the Laurence Joseph Dineen Chair in Leukemia Research, the Chief of Molecular Cancer Medicine, 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.

## Scientific Advisory Board



Chair





Prof. Dr. Ross Levine



Dr. Peter Kaspar

Leadership positions at Roche Diagnostics and bioMérieux during career in diagnostics, Life Sciences and pharmaceuticals



Dr. Neville Sanjana

Core Faculty Member at the New York Genome Center and Assistant Professor at New York University

**Vice Chair** 



**Dr. Metin Colpan** 



**Prof. Patrice Nordmann** 

Chair of the Medical and Molecular Microbiology Department and other roles at University of Fribourg, Switzerland



Dr. Sarah Teichmann

Head of cellular genetics at the Wellcome Sanger Institute and director of research at Cavendish Laboratory, University of Cambridge

Ensuring QIAGEN remains at the cutting edge in the Life Sciences and Molecular Diagnostics



# Q2 2022 results

Solid results with 10% CER sales growth in non-COVID portfolios



## Forward looking and intended use statements



Safe Harbor Statement: This presentation contains both historical and forward-looking statements. All statements other than statements of historical fact are, or may be, deemed to 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. To the extent that any of the statements contained herein relating to QIAGEN's products, launches, regulatory submissions, collaborations, markets, strategy, taxes or operating results, including without limitation its expected net sales, net sales of particular products (including anticipated sales of the portfolio of products used in the response to the COVID-19 pandemic, its QFT-Plus test for latent TB, its portfolio of next generation sequencing solutions as well as Sample technologies, NeuMoDx, QIAcuity digital PCR, and QIAstat-Dx and QuantiFERON), net sales in particular geographies, adjusted net sales, adjusted diluted earnings per share results, product launches (including anticipated launches of next generation sequencing solutions, the QIAstat-Dx syndromic testing platform, a gastrointestinal panel in the U.S., and a CE-IVD marked panel for meningitis for the QIAstat-Dx syndromic testing platform, along with the QuantiFERON-based tests for tuberculosis and Lyme disease), placements of QIAsymphony modular PCR instruments, improvements in operating and financial leverage, currency movements against the U.S. dollar, plans for investment in our portfolio and share repurchase commitments, our ability to grow adjusted earnings per share at a greater rate than sales, our ability to improve operating efficiencies and maintain disciplined capital allocation, are forward-looking, such statements are based on current expectations and assumptions that involve a number of uncertainties and risks. Such uncertainties and risks include, but are not limited to, risks associated with management of growth and international operations (including the effects of currency fluctuations, regulatory processes and dependence on logistics); variability of operating results and allocations between customer classes; the commercial development of markets for our products to customers in academia, pharma, applied testing and molecular diagnostics; changing relationships with customers, suppliers and strategic partners; competition; rapid or unexpected changes in technologies; fluctuations in demand for QIAGEN's products (including fluctuations due to general economic conditions, the level and timing of customers' funding, budgets and other factors); our ability to obtain regulatory approval of our products; difficulties in successfully adapting QIAGEN's products to integrated solutions and producing such products; the ability of QIAGEN to identify and develop new products and to differentiate and protect our products from competitors' products; market acceptance of QIAGEN's new products and the integration of acquired technologies and businesses; actions of governments, global or regional economic developments, weather or transportation delays, natural disasters, political or public health crises, including the breadth and duration of the COVID-19 pandemic and its impact on the demand for our products and other aspects of our business, or other force majeure events; and the other factors discussed under the heading "Risk Factors" contained in Item 3 of our most recent Annual Report on Form 20-F. For further information, please refer to the discussions in reports that QIAGEN has filed with, or furnished to, the U.S. Securities and Exchange Commission (SEC).

Regulation G: QIAGEN reports adjusted results, as well as results on a constant exchange rate (CER) basis, and other non-U.S. GAAP figures (generally accepted accounting principles), to provide additional insight on performance. In this presentation, adjusted results include adjusted net sales, adjusted gross income, adjusted net income, adjusted operating expenses, adjusted operating income, adjusted operating margin, adjusted net income before taxes, adjusted income tax, adjusted tax rate, adjusted EBITDA, adjusted EPS, adjusted diluted EPS and free cash flow. Adjusted results are non-GAAP financial measures QIAGEN believes should be considered in addition to reported results prepared in accordance with GAAP but should not be considered as a substitute. QIAGEN believes certain items should be excluded from adjusted results when they are outside of its ongoing core operations, vary significantly from period to period, or affect the comparability of results with its competitors and its own prior periods. Please see the Appendix provided in this presentation "Reconciliation of Non-GAAP to GAAP Measures" for reconciliations of historical non-GAAP measures to comparable GAAP measures and the definitions of terms used in the presentation. QIAGEN does not reconcile forward-looking non-GAAP financial measures to the corresponding GAAP measures are not available without unreasonable effort. However, the actual amounts of these excluded items will have a significant impact on QIAGEN's GAAP results.



# Q2 2022: Non-COVID product groups outperformed expectations





**Net sales (CER)** 

**Q2 2022:** \$544 million<sup>(1)</sup> vs. ≥ \$510 million outlook

+ 10% non-COVID products

- 39% COVID-19 products



**Adjusted EPS (CER)** 

Q2 2022: \$0.53 vs. ≥ \$0.46 outlook

CER - Constant Exchange Rates.
Refer to appendix for reconciliation

Refer to appendix for reconciliation of reported to adjusted figures.

## Q2 2022: Strong performance from non-COVID portfolio











#### High-performing non-COVID business

+10% CER growth in non-COVID product groups, solid gains from Five Pillars of Growth

# Expanding portfolio value

>1,000 cumulative placements for QIAcuity dPCR

Launched new instruments: QIAstat-Dx Rise and QIAxcel

Executing on menu expansion for NeuMoDx with new HSV ½ Quant Assay

## Strong operating cash flow

H1 2022 operating cash flow +33% to \$379 million

Free cash flow +63% to \$318 million

#### Increasing 2022 fullyear outlook

Sales:>\$2.2 billion CER

Double-digit CER growth in non-COVID products

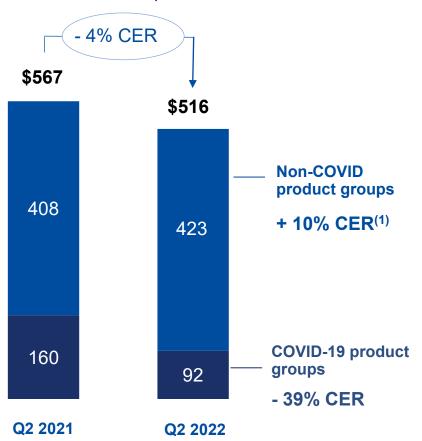
Adj. EPS: ≥\$2.30 CER

## Q2 2022: Solid non-COVID sales growth in key product groups



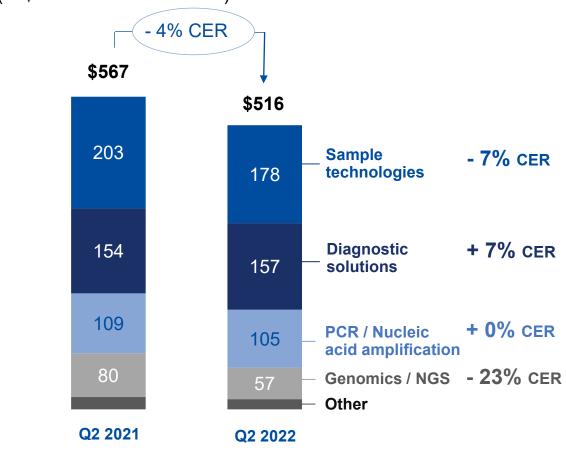
#### Non-COVID / COVID split

(In \$ millions at actual rates)



#### By product group

(In \$ millions at actual rates)



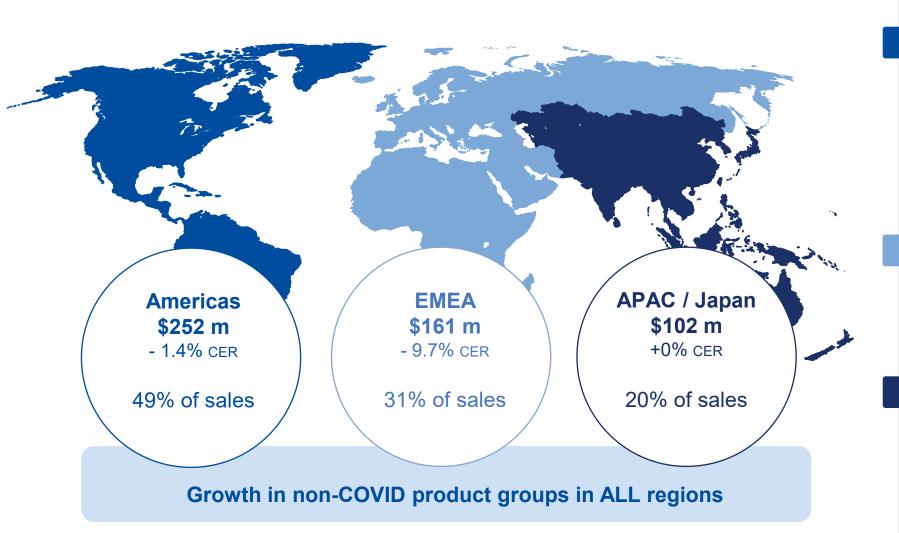
Growth rates vs. Q2 2021 at CER. | Refer to appendix for growth at actual rates. | Tables may contain rounding differences.

<sup>1) +15%</sup> CER excluding \$20 million genomics license agreement in Q2 2021

<sup>2) +8%</sup> CER in non-COVID Sample technologies products

# Q2 2022: Growth in non-COVID product groups across all regions





#### **Americas**

- Strong double-digit growth in QuantiFERON sales
- U.S.: Sales level similar to Q2 2021
- Canada: Double-digit CER growth

#### **Europe / Middle East / Africa**

 Germany, Spain and Netherlands: Double-digit CER growth

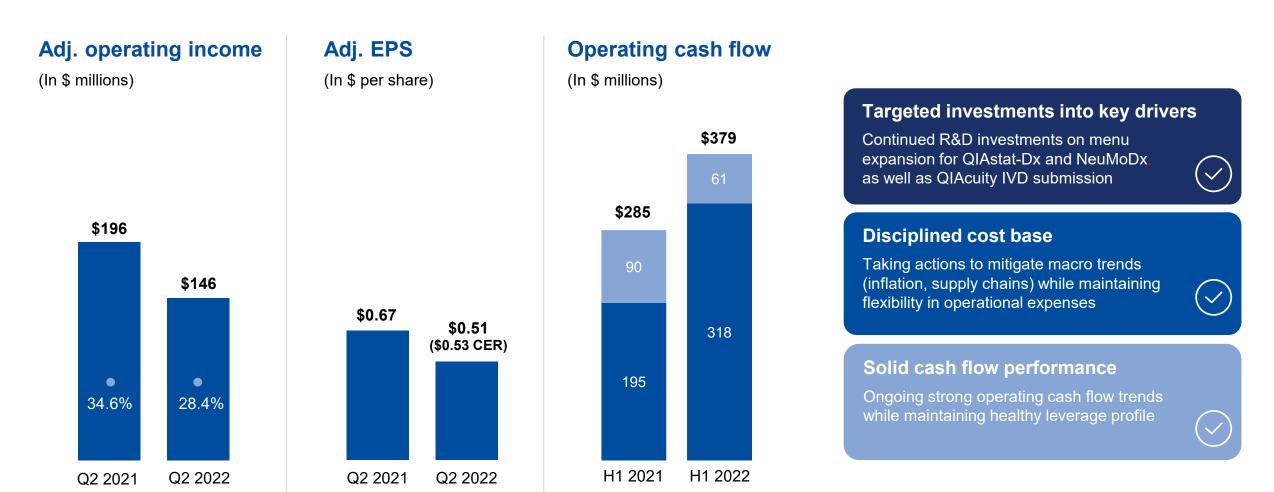
#### Asia-Pacific / Japan

China: Low-single-digit CER growth despite lockdown challenges

Growth rates vs. Q2 2021 at CER. | Refer to appendix for growth at actual rates.

## Q2 2022: Investing in the business with strong operating cash flow





Refer to appendix for reconciliation of reported to adjusted figures. PP&E – property, plant & equipment

Adjusted operating

income margin

Q3 2022 Investor Resource Book

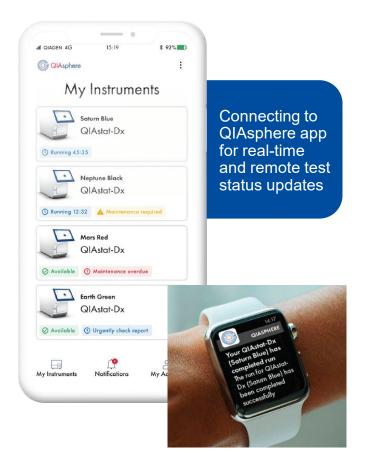
Purchase of PP&E

■ Free cash flow

# QIAstat-Dx Rise: Unique automated loading for high-volume testing

For laboratories processing > 5,000 samples annually

#### **Connectivity for remote monitoring**



First fully-automated high-volume syndromic testing platform



Walk-away efficiency and random access

Automatic loading and unloading: Load up to 18 samples at once



Seamless connectivity

For enhanced testing continuity



Higher throughput testing capacity

Manages spikes in testing demand



**Unmatched flexibility** 

Units can be removed for individual use





# QIAxcel Connect: Fully automated quality control and end-point detection



#### **Gel electrophoresis for DNA and RNA analysis**

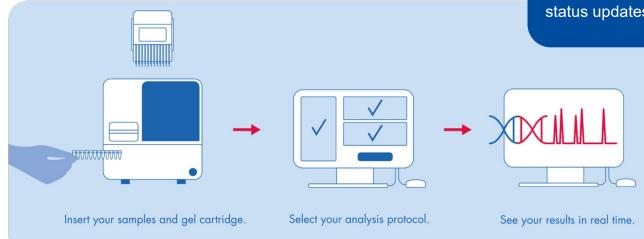
For PCR and NGS workflows

New upgrade of QIAxcel Advanced
Higher sensitivity and new level of connectivity

Simplicity and convenience
"Plug and play" with ready-to-use gel cartridges

Fast time to results
Streamlined workflow with short analysis times

Connecting to QIAsphere app for real-time and remote test status updates



## Five pillars of growth: Reaffirming our goals for 2022 and beyond



		2022 sales goals (CER)	Post-COVID dynamics (CER)
	Sample technologies	>\$750 m	Sustainable low- to mid-single-digit growth
The second secon	QuantiFERON	>\$310 m	Sustainable low-double-digit growth
	QIAstat-Dx	>\$85 m	Sustainable double-digit growth
	NeuMoDx	>\$80 m	Sustainable double-digit growth
	QIAcuity digital PCR	>\$55 m	Sustainable double-digit growth

CER - Constant Exchange Rates



### Outlook: Q3 and FY 2022



Q3 2022 outlook

≥ \$510 million CER

Adverse FX impact of ~ -6 p.p (*Prior year:* \$534.7 m)

Non-COVID product groups

Anticipated currency impact

**Adjusted EPS** 

**Net sales** 

Anticipated currency impact

Adjusted tax rate

**Shares outstanding**<sup>(1)</sup>

≥ \$0.48 CER

Adverse FX impact of ~ -\$0.02-0.03 (Prior year: \$0.58)

~17-18%

~230 million

**Updated FY 2022 outlook** 

≥ \$2.2 billion CER

Adverse FX impact of  $\sim$  -5 p.p. (*Prior year:* \$2,251.7 m)

Double-digit CER growth

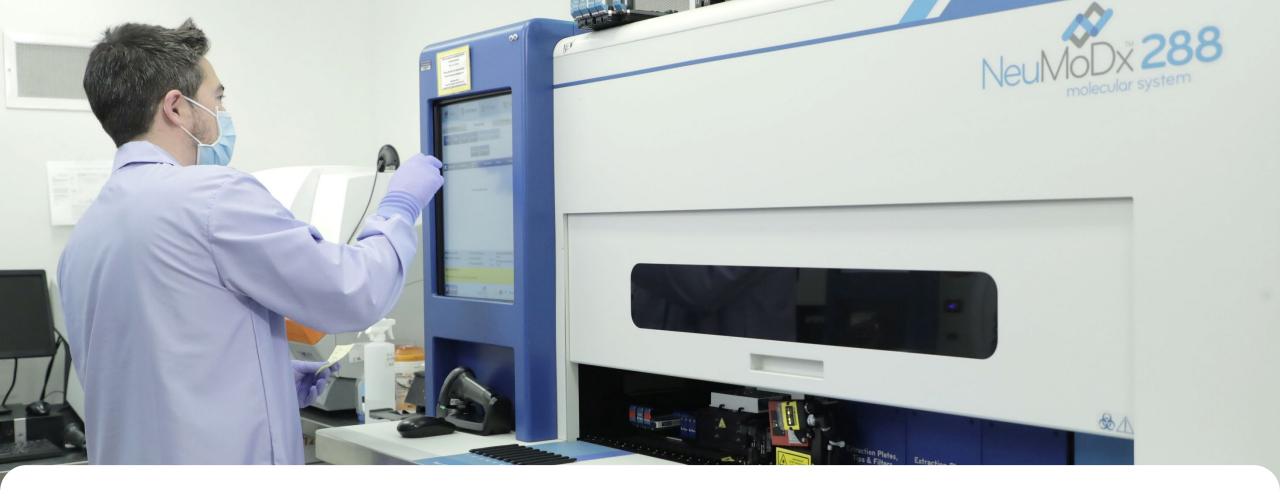
≥ \$2.30 CER

Adverse FX impact of ~ -\$0.10-0.11 (Prior year: \$2.65)

~18-19%

~230 million

Outlook as of July 26, 2022, see appendix for additional information | CER - Constant Exchange Rates | 1) Based on \$50.00 share price



# Appendix



## Q3 and FY 2022: Outlook and assumptions



(As of July 26, 2022)	Q3 2022 outlook	Updated FY 2022 outlook
Net sales	≥ \$510 million CER (Prior year: \$534.7 m)	≥ <b>\$2.2 billion CER</b> (Prior year: \$2,251.7 m)
Anticipated currency impact <sup>(1)</sup>	Adverse impact of ~ -6 p.p.	Adverse impact of ~ -5 p.p.
Adjusted EPS <sup>(2)</sup>	≥ <b>\$0.48 CER</b> (Prior year: \$0.58)	<b>≥ \$2.30 CER</b> (Prior year: \$2.65)
Anticipated currency impact <sup>(1)</sup>	Adverse impact of ~ -\$0.02-0.03	Adverse impact of ~ -\$0.10-0.11
Adjustments to operating income (In \$ millions):		
Business integration and acquisition-related items	~\$6 m	~\$24 m
Restructuring-related items	~\$0 m	~\$0 m
Amortization of acquired intellectual property	~\$18 m	~\$75 m
Non-cash interest expense charges	~\$8 m	~\$34 m
Adjusted tax rate (in %)	~17-18%	~18-19%
Weighted average number of diluted shares outstanding Based on \$50.00 share price)	~230 million	~230 million
I)Based on exchange rates as of July 25, 2022		

<sup>1)</sup> Based on exchange rates as of July 25, 202

<sup>2)</sup>QIAGEN reports adjusted results, as well as results on a constant exchange rate (CER) basis, and other non-U.S. GAAP figures to provide additional insight into its performance. These results include adjusted gross profit, adjusted operating income, adjusted net income attributable to owners of QIAGEN N.V. and adjusted diluted EPS. Adjusted results are non-GAAP financial measures that QIAGEN believes should be considered in addition to reported results prepared in accordance with GAAP but should not be considered as a substitute. QIAGEN believes certain items should be excluded from adjusted results when they are outside of ongoing core operations, vary significantly from period to period, or affect the comparability of results with competitors and its own prior periods. Furthermore, QIAGEN uses non-GAAP and constant currency financial measures internally in planning, forecasting and reporting, as well as to measure and compensate employees. QIAGEN also uses adjusted results when comparing current performance to historical operating results, which have consistently been presented on an adjusted basis.

<sup>3)</sup> Every \$1.00 change from \$50.00 in market price per share of QIAGEN stock results in a ~300,000-350,000 increase / decrease in dilutive shares due to the call-spread overlay (CSO). The CSO is dilutive above \$48.29 for the 2023 convertible notes and above \$49.20 for the 2024 convertible notes.

## Q2 2022: Consolidated Statements of Income (unaudited)



(In \$ thousands, except share data)	Three months ended June 30, 2022	Three months ended June 30, 2021
Net sales	515,512	567,308
Cost of sales:		
Cost of sales	169,381	180,388
Acquisition-related intangible amortization	15,113	17,732
Total cost of sales	184,494	198,120
Gross profit	331,018	369,188
Operating expenses:		
Research and development	49,896	52,150
Sales and marketing	118,890	110,394
General and administrative	32,528	31,018
Acquisition-related intangible amortization	2,799	5,320
Restructuring, acquisition, integration and other, net	4,748	9,035
Total operating expenses	208,861	207,917
Income from operations	122,157	161,271
Adjusted income from operations	146,213	196,386
Other income (expense):		
Interest income	4,338	2,093
Interest expense	(13,659)	(13,907)
Other income, net	2,688	442
Total other expense, net	(6,633)	(11,372)
Income before income taxes	115,524	149,899
Adjusted income before income taxes	147,391	191,887
Income taxes	18,863	28,848
Adjusted income tax	29,201	37,192
Net income	96,661	121,051
Adjusted net income	118,190	154,695
Diluted net income per common share	\$0.42	\$0.52
Adjusted diluted net income per common share	\$0.51	\$0.67
Diluted shares used in computing diluted net income per common share (in thousands)	229,938	231,950

## H1 2022: Consolidated Statements of Income (unaudited)



(In \$ thousands, except share data)	Six months ended June 30, 2022	Six months ended June 30, 2021
Net sales	1,143,903	1,134,514
Cost of sales:		
Cost of sales	367,499	359,362
Acquisition-related intangible amortization	30,416	35,373
Total cost of sales	397,915	394,735
Gross profit	745,988	739,779
Operating expenses:		·
Research and development	96,272	99,583
Sales and marketing	237,394	224,154
General and administrative	66,878	64,821
Acquisition-related intangible amortization	5,716	10,728
Restructuring, acquisition, integration and other, net	10,500	15,424
Total operating expenses	416,760	414,710
Income from operations	329,228	325,069
Adjusted income from operations	377,839	391,081
Other income (expense):		
Interest income	6,560	3,711
Interest expense	(27,195)	(27,445)
Other income, net	2,453	7,664
Total other expense, net	(18,182)	(16,070)
Income before income taxes	311,046	308,999
Adjusted income before income taxes	375,512	382,746
Income taxes	59,073	58,725
Adjusted income tax	72,955	74,253
Net income	251,973	250,274
Adjusted net income	302,557	308,493
Diluted net income per common share	\$1.09	\$1.08
Adjusted diluted net income per common share	\$1.31	\$1.33
Diluted shares used in computing diluted net income per common share (in thousands)	230,229	232,122

# 2022: Quarterly sales by product group



(In \$ millions at actual rates /		Q1 2022			Q2 2022			Q3 2022			Q4 2022			FY 2022		
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	
Sample technologies	265	17%	22%	178	-12%	-7%							443	3%	8%	
Diagnostic solutions <sup>(1)</sup>	174	16%	21%	157	2%	7%							331	9%	14%	
Of which QuantiFERON	78	38%	41%	83	15%	19%							161	25%	28%	
Of which QIAstat-Dx	27	25%	31%	16	4%	11%							43	16%	22%	
Of which NeuMoDx	27	-15%	-11%	18	-18%	-11%							45	-16%	-11%	
Of which Other	42	7%	13%	40	-11%	-4%							82	-3%	4%	
PCR / Nucleic acid amplification	116	-1%	1%	105	-3%	0%							221	-2%	1%	
Genomics / NGS	56	11%	16%	57	-28%	-23%							113	-13%	-8%	
Other	17	-27%	-16%	19	-17%	-6%							35	-22%	-11%	
Total	628	11%	15%	516	-9%	-4%							1,144	1%	6%	

<sup>1)</sup>Companion diagnostic co-development sales in 2022 (Q1: \$9 million, 27%, 26% CER; Q2: \$10 million, -1%, 2% CER; H1: \$19 million, 10%, 12% CER). Tables may contain rounding differences. Percentage changes are to prior-year periods.

## 2021: Quarterly sales by product group



(In \$ millions at actual rates /		Q1 2021		Q2 2021			Q3 2021			Q4 2021			FY 2021		
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER
Sample technologies	227	47%	42%	203	1%	-3%	202	-5%	-6%	218	-7%	-5%	851	6%	4%
Diagnostic solutions <sup>(1)</sup>	150	56%	52%	154	76%	71%	162	37%	35%	173	9%	11%	639	39%	37%
Of which QuantiFERON	57	25%	22%	72	114%	109%	79	49%	48%	74	27%	29%	281	48%	47%
Of which QIAstat-Dx	22	229%	218%	16	9%	4%	15	2%	2%	23	26%	29%	75	39%	38%
Of which NeuMoDx	32	NM	NM	22	226%	209%	23	139%	136%	27	-22%	-20%	105	94%	90%
Of which Other	39	-4%	-6%	45	37%	33%	44	9%	7%	49	2%	4%	178	9%	8%
PCR / Nucleic acid amplification	117	90%	84%	109	11%	8%	98	3%	2%	110	2%	3%	434	19%	18%
Genomics / NGS	50	21%	17%	80	115%	110%	53	44%	44%	62	25%	28%	245	48%	47%
Other	23	23%	21%	22	7%	5%	19	1%	2%	19	3%	11%	83	9%	10%
Total	567	52%	48%	567	28%	24%	535	11%	10%	582	2%	4%	2,252	20%	19%

<sup>1)</sup>Companion diagnostic co-development sales in 2021 (Q1: \$7 million, 9%, 11% CER; Q2: \$10 million, 33%, 31% CER; Q3: \$10 million, 23%. 20% CER; Q4: \$12 million, 32%, 30% CER; FY: \$39 million, 25%, 24% CER).

Tables may contain rounding differences.

Percentage changes are to prior-year periods.

NM — Not meaningful

## 2022: Sales by non-COVID and COVID-19 product groups



(In \$ millions at actual rates /	Q1 2022			Q2 2022			Q3 2022			Q4 2022			FY 2022		
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER
Non-COVID product groups	400	10%	14%	423	4%	10%							823	7%	12%
COVID-19 product groups	229	13%	18%	92	-42%	-39%							321	-12%	-7%
Total	628	11%	15%	516	-9%	-4%							1,144	1%	6%

## 2021: Sales by non-COVID and COVID-19 product groups



(In \$ millions at actual rates /	Q1 2021			Q2 2021			Q3 2021			Q4 2021			FY 2021		
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER
Non-COVID product groups	364	20%	16%	408	57%	52%	376	18%	17%	400	8%	10%	1,547	24%	22%
COVID-19 product groups	203	194%	186%	160	-13%	-17%	159	-3%	-4%	183	-9%	-7%	704	14%	13%
Total	567	52%	48%	567	28%	24%	535	11%	10%	582	2%	4%	2,252	20%	19%

## 2022: Quarterly sales by product type, customer class and region



(In \$ millions at actual rates /		Q1 2022	2		Q2 2022	2	Q3 2022			Q4 2022				FY 2022	2
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER
Product type															
Consumables and related revenues	561	13%	17%	453	-9%	-4%							1,014	2%	7%
Instruments	67	-2%	2%	63	-10%	-5%							130	-6%	-2%
Customer class															
Molecular Diagnostics	357	28%	35%	255	-6%	0%							611	11%	18%
Life Sciences	272	-6%	-3%	261	-12%	-8%							533	-9%	-6%
Geographic region <sup>(1)</sup>															
Americas	253	4%	4%	252	-2%	-1%							505	1%	1%
Europe / Middle East / Africa	249	14%	24%	161	-21%	-10%							410	-3%	8%
Asia-Pacific / Japan	126	21%	25%	102	-6%	0%							229	7%	12%
Total	628	11%	15%	516	-9%	-4%							1,144	1%	6%

<sup>1)</sup> Rest of World contributed less than 1% of net sales in Q1, Q2 and H1 2022. | Tables may contain rounding differences

## 2021: Quarterly sales by product type, customer class and region



(In \$ millions at actual rates /		Q1 2021			Q2 2021		Q3 2021			Q4 2021			FY 2021		
change in actual, CER rates)	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER	Sales	Act.	CER
Product type															
Consumables and related revenues	498	53%	48%	498	33%	28%	473	13%	12%	517	5%	7%	1,986	23%	21%
Instruments	69	49%	43%	69	2%	-3%	62	-3%	-4%	65	-16%	-14%	265	4%	2%
Customer class															
Molecular Diagnostics	279	59%	54%	272	33%	28%	279	18%	17%	313	9%	12%	1,144	27%	25%
Life Sciences	288	47%	42%	296	24%	20%	256	4%	3%	269	-5%	-4%	1,108	15%	13%
Geographic region <sup>(1)</sup>															
Americas	244	41%	41%	257	45%	44%	248	9%	9%	259	5%	5%	1,007	22%	22%
Europe / Middle East / Africa	219	70%	60%	202	23%	15%	174	6%	6%	219	-3%	2%	814	19%	17%
Asia-Pacific / Japan	104	51%	44%	109	10%	4%	112	22%	20%	104	6%	7%	429	20%	17%
Total	567	52%	48%	567	28%	24%	535	11%	10%	582	2%	4%	2,252	20%	19%

<sup>1)</sup> Rest of World contributed less than 1% of net sales in Q1, Q2, Q3, Q4 and FY 2021. | Tables may contain rounding differences

## Q2 2022: Reconciliation adjusted results (unaudited)



(In \$ millions, except EPS)	Net sales	Gross profit	Operating income	Pretax income	Income tax	Tax rate	Net income	Diluted EPS
Second quarter 2022								
Reported results	515.5	331.0	122.2	115.5	(18.9)	16%	96.7	0.42
Adjustments								
Business integration, acquisition and restructuring-related items (a)		1.4	6.1	5.8	(1.5)		4.2	0.02
Purchased intangibles amortization (b)		15.1	17.9	17.9	(4.4)		13.5	0.06
Non-cash interest expense charges (c)				8.0			8.0	0.03
Non-cash other income, net (d)				0.2			0.2	0.00
Certain income tax items (e)					(4.4)		(4.4)	(0.02)
Total adjustments		16.5	24.0	31.9	(10.3)		21.5	0.09
Adjusted results	515.5	347.5	146.2	147.4	(29.2)	20%	118.2	0.51
First half 2022								
Reported results	1,143.9	746.0	329.2	311.0	(59.1)	19%	252.0	1.09
Adjustments								
Business integration, acquisition and restructuring-related items (a)		2.0	12.5	12.2	(3.2)		9.0	0.04
Purchased intangibles amortization (b)		30.4	36.1	36.1	(8.9)		27.2	0.12
Non-cash interest expense charges (c)				15.9			15.9	0.07
Non-cash other income, net (d)				0.2			0.2	0.00
Certain income tax items (e)					(1.8)		(1.8)	(0.01)
Total adjustments		32.4	48.6	64.5	(13.9)		50.6	0.22
Adjusted results	1,143.9	778.4	377.8	375.5	(73.0)	19%	302.6	1.31

Please see footnotes for these tables on the following page.
Weighted number of diluted shares (Q2 2022: 229.9 million; H1 2022: 230.2 million)

## Q2 2022: Footnotes for reconciliation adjusted results (unaudited)



- a) Results for 2022 include costs for acquisition projects, including continued integration activities at NeuMoDx, as well as costs and impairments related to our business in Russia, Ukraine and Belarus, and the Q2 2022 acquisition of BLIRT S.A. Results for 2021 include integration costs for the NeuMoDx acquisition completed in September 2020. A restructuring program was initiated in late 2019, and charges were incurred through the end of 2021.
- b) The net decrease reflects the full amortization during 2021 of certain assets previously acquired, but partially offset by amortization related to BLIRT S.A., acquired in Q2 2022.
- c) Cash Convertible Notes were recorded at an original issue discount that is recognized as incremental non-cash interest expense over the expected life of the notes.
- d) Adjustment for the net impact of changes in fair value of the Call Options and the Embedded Cash Conversion Options related to the Cash Convertible Notes.
- e) This includes the impact of the estimated annual effective tax rate applied to the pretax amount in order to calculate the non-GAAP provision for income taxes. Additionally, certain income tax items were excluded from adjusted results since these represent updates in QIAGEN's assessment of ongoing examinations or other tax items that are not indicative of the Company's normal or future income tax expense. QIAGEN does not believe the impact of these events reflects the performance of ongoing operations for the periods in which the impact of such events were recorded.

Tables may contain rounding differences.

# 2022: Quarterly and full-year income statement summary



(In \$ millions, unless indicated) (Diluted EPS in \$ per share)	Q1 2022	Q2 2022	Q3 2022	Q4 2022	FY 2022
Net sales	628.4	515.5			1,143.9
Net sales (CER)	654.1	543.8			1,197.9
Gross profit	415.0	331.0			746.0
Gross profit margin	66.0%	64.2%			65.2%
Adjusted gross profit	430.9	347.5			778.4
Adjusted gross profit margin	68.6%	67.4%			68.0%
Operating income	207.1	122.2			329.2
Operating margin	33.0%	23.7%			28.8%
Adjusted operating income	231.6	146.2			377.8
Adjusted operating margin	36.9%	28.4%			33.0%
Tax rate	21%	16%			19%
Adjusted tax rate	19%	20%			19%
Net income	155.3	96.7			252.0
Adjusted net income	184.4	118.2			302.6
Diluted EPS	0.67	0.42			1.09
Adjusted diluted EPS (CER) (\$ per share)	0.80 (0.83)	0.51 (0.53)			1.31 (1.36)
Diluted shares outstanding for EPS calculation	230.2	229.9			230.2

CER - Constant exchange rates | Table may have rounding differences. | Refer to accompanying tables for reconciliation of reported to adjusted figures.

# 2021: Quarterly and full-year income statement summary



(In \$ millions, unless indicated) (Diluted EPS in \$ per share)	Q1 2021	Q2 2021	Q3 2021	Q4 2021	FY 2021
Net sales	567.2	567.3	534.7	582.4	2,251.7
Gross profit	370.6	369.2	337.2	373.8	1,450.8
Gross profit margin	65.3%	65.1%	63.1%	64.2%	64.4%
Adjusted gross profit	389.7	389.9	356.1	393.7	1,529.4
Adjusted gross profit margin	68.7%	68.7%	66.6%	67.6%	67.9%
Operating income	163.8	161.3	131.9	173.1	630.1
Operating margin	28.9%	28.4%	24.7%	29.7%	28.0%
Adjusted operating income	194.7	196.4	164.6	199.3	755.0
Adjusted operating margin	34.3%	34.6%	30.8%	34.2%	33.5%
Tax rate	19%	19%	12%	22%	18%
Adjusted tax rate	19%	19%	17%	14%	18%
Net income	129.2	121.1	133.1	129.2	512.6
Adjusted net income	153.8	154.7	134.6	171.0	614.1
Diluted EPS	0.56	0.52	0.57	0.56	2.21
Adjusted diluted EPS (CER) (\$ per share)	0.66 (0.65)	0.67 (0.66)	0.58 (0.58)	0.74 (0.75)	2.65 (2.63)
Diluted shares outstanding for EPS calculation	232.3	231.9	232.1	231.8	232.0

CER - Constant exchange rates | Table may have rounding differences. | Refer to accompanying tables for reconciliation of reported to adjusted figures.

### **Consolidated Balance Sheets**



(In \$ thousands, except par value)	June 30, 2022	December 31, 2021
Assets	(unaudited)	
Cash and cash equivalents	706,534	880,516
Short-term investments	604,429	184,785
Accounts receivable, net	334,573	362,131
Inventories, net	322,831	327,525
Prepaid expenses and other current assets	176,730	354,645
Total current assets	2,145,097	2,109,602
Property, plant and equipment, net	619,192	638,183
Goodwill	2,341,123	2,350,763
Intangible assets, net	594,439	627,436
Fair value of derivative instruments	235,315	190,430
Other long-term assets	148,277	157,644
Deferred income taxes	70,242	72,896
Total long-term assets	4,008,588	4,037,352
Total assets	6,153,685	6,146,954

(In \$ thousands, except par value)	June 30, 2022	December 31, 2021
Liabilities and Equity	(unaudited)	
Current portion of long-term debt	460,267	847,626
Accrued and other current liabilities	417,442	568,620
Accounts payable	85,195	101,224
Total current liabilities	962,904	1,517,470
Long-term debt	1,475,255	1,094,144
Fair value of derivative instruments	223,168	191,879
Other long-term liabilities	175,354	209,320
Deferred income taxes	34,593	37,591
Total long-term liabilities	1,908,370	1,532,934
Common shares, EUR 0.01 par value: Authorized – 410,000 shares	2,702	2,702
Issued – 230,829 shares	, -	, -
Additional paid-in capital	1,841,757	1,818,508
Retained earnings	1,990,596	1,791,740
Accumulated other comprehensive loss	(391,421)	(326,670)
Less treasury shares at cost – 3,135 shares (2022) and 3,755 shares (2021)	(161,223)	(189,730)
Total equity	3,282,411	3,096,550
Total liabilities and equity	6,153,685	6,146,954
Balance Sheet data and metrics		
Group liquidity <sup>(1)</sup>	1,310,963	1,065,301
Net debt <sup>(2)</sup>	624,559	876,469
Leverage ratio <sup>(3)</sup>	0.7x	0.9x

<sup>(1)</sup> Group liquidity includes cash, cash equivalents and short-term investments.

<sup>(2)</sup> Net debt is equal to total outstanding long-term debt minus group liquidity.

<sup>(3)</sup> Leverage ratio is calculated on trailing four quarters as net debt / adjusted EBITDA.

## Consolidated Statements of Cash Flows (unaudited)



Six months ended (In \$ thousands)	June 30, 2022	June 30, 2021
Cash flows from operating activities: Net income	251,973	250,274
Adjustments to reconcile net income to net cash provided by operating activities, net of effects of businesses acquired:		
Depreciation and amortization	103,408	110,669
Share-based compensation	23,249	19,297
Amortization of debt discount and issuance costs	16,650	15,986
Deferred income taxes	(3,950)	(30,993)
Other items, net including fair value changes in derivatives	7,620	4,913
Change in operating assets	(13,299)	(62,749)
Change in operating liabilities	(6,288)	(22,371)
Net cash provided by operating activities	379,363	285,026
Cash flows from investing activities:		
Purchases of property, plant and equipment	(61,367)	(90,001)
Purchases of intangible assets	(14,657)	(11,253)
Purchases of investments	(958)	(1,645)
Cash paid for acquisitions, net of cash acquired	(63,651)	-
Purchases of short-term investments	(653,114)	(136,683)
Proceeds from sales of short-term investments	224,751	117,967
Cash received for collateral asset	11,100	42,890
Other investing activities	107	43
Net cash used in investing activities	(557,789)	(78,682)

Six months ended (In \$ thousands)	June 30, 2022	June 30, 2021
Cash flows from financing activities:		
Repayment of long-term debt	_	(41,345)
Proceeds from issuance of common shares	106	2,714
Tax withholdings related to vesting of stock awards	(16,684)	(13,291)
Cash paid for contingent consideration	(4,572)	-
Cash received for collateral liability	33,699	10,100
Other financing activities	-	(1,656)
Net cash provided by (used in) financing activities	12,549	(43,478)
Effect of exchange rate changes on cash and cash equivalents	(8,105)	(1,803)
Net (decrease) increase in cash and cash equivalents	(173,982)	161,063
Cash and cash equivalents, beginning of period	880,516	597,984
Cash and cash equivalents, end of period	706,534	759,047
Reconciliation of Free Cash Flow <sup>(1)</sup>		
Net cash provided by operating activities	379,363	285,026
Purchases of property, plant and equipment	(61,367)	(90,001)
Free Cash Flow	317,996	195,025

<sup>(1)</sup> Free cash flow is a non-GAAP financial measure and is calculated from cash provided by operations reduced by purchases of property, plant and equipment. QIAGEN believes this is a common financial measure useful to further evaluate the results of operations.

## Q2 and H1 2022: Currency impact



	Net sales (In \$ millions / Actual)	Net sales (CER)	Currency exposure (As % of CER sales)	Change (In \$ millions)
Q2 2022				
U.S. dollar	267.9	267.9	49%	0.0
Euro	105.8	119.5	22%	13.7
British pound	22.2	24.7	5%	2.4
Japanese yen	11.7	13.9	3%	2.2
Other currencies	107.8	117.8	22%	9.9
Total net sales	515.5	543.8	100%	28.2
H1 2022				
U.S. dollar	554.1	554.1	46%	0.0
Euro	272.2	298.2	25%	26.0
British pound	45.0	48.1	4%	3.1
Japanese yen	29.2	33.0	3%	3.9
Other currencies	243.4	264.4	22%	21.1
Total net sales	1,143.9	1,197.9	100%	54.0

# Employees as of June 30, 2022



Americas	Europe / Middle East / Africa	Asia Pacific / Japan / ROW	Total Q2 2022	Total Q1 2022	Change
418	1,274	153	1,845	1,812	2%
207	771	58	1,036	997	4%
600	879	815	2,294	2,254	2%
73	199	72	344	336	2%
79	419	159	657	631	4%
1,377	3,542	1,257	6,176	6,030	2%
	418 207 600 73 79	Americas         East / Africa           418         1,274           207         771           600         879           73         199           79         419	Americas         East / Africa         Japan / ROW           418         1,274         153           207         771         58           600         879         815           73         199         72           79         419         159	Americas         East / Africa         Japan / ROW         Q2 2022           418         1,274         153         1,845           207         771         58         1,036           600         879         815         2,294           73         199         72         344           79         419         159         657	Americas         East / Africa         Japan / ROW         Q2 2022         Q1 2022           418         1,274         153         1,845         1,812           207         771         58         1,036         997           600         879         815         2,294         2,254           73         199         72         344         336           79         419         159         657         631

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#### Calendar

Q3 2022 results	November 2022
Q4 2022 results	February 2023



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