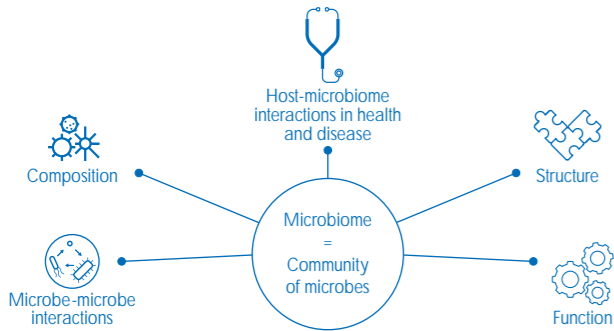




## Addressing the complexity of microbial relationships



## QIAGEN® microbial and microbiome workflows provide

- Complete sample lysis for accurate representation of the microbial content
- High productivity and yield (automated) sample prep
- Ultra-clean PCR reagents for confidence in results
- dPCR for precise detection of a single positive signal
- Efficient NGS with low bioburden results and inhibitor-resistant chemistries for both metagenomics and metatranscriptomics applications
- Comprehensive and intuitive data analysis solutions

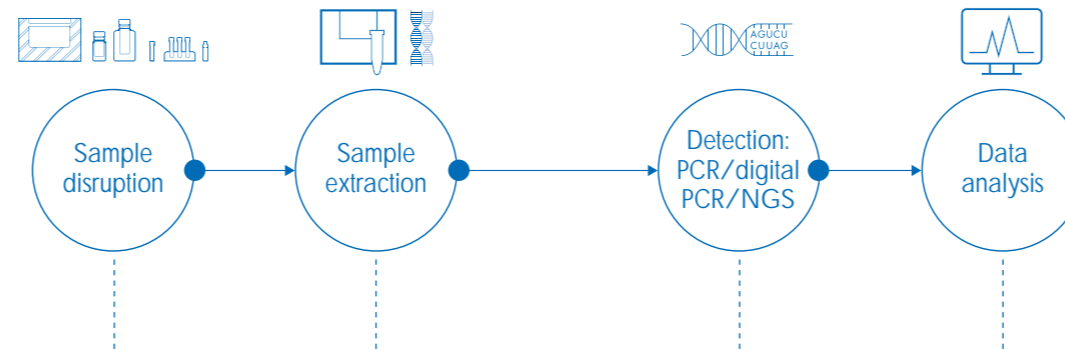
## Sample processing

- Fast, powerful and efficient homogenization – even of microbes with a robust extracellular matrix
- High yield, high quality microbial DNA/RNA isolation kits with patented Inhibitor Removal Technology® greatly improve analysis and efficient host DNA depletion

QIAcube Connect: monitor and manage fully automated DNA/RNA extraction from outside the lab.



# From microbes to microbiomes – results you can trust



|   |  |  |  |
|---|--|--|--|
| <ul style="list-style-type: none"> <li>• PowerBead Pro Tubes</li> <li>• PowerBead Pro Plates</li> </ul>                 | <ul style="list-style-type: none"> <li>• AllPrep® PowerFecal® Pro DNA/RNA</li> <li>• AllPrep PowerViral® DNA/RNA</li> <li>• DNeasy® PowerSoil® Pro</li> <li>• DNeasy 96 PowerSoil Pro</li> <li>• DNeasy 96 PowerSoil Pro QIAcube® HT</li> <li>• DNeasy PowerWater®</li> <li>• QIAamp® PowerFecal Pro DNA</li> <li>• QIAamp DNA Microbiome</li> <li>• QIASymphony® PowerFecal Pro DNA</li> <li>• RNeasy® PowerMicrobiome®</li> <li>• RNeasy PowerWater</li> </ul> | <ul style="list-style-type: none"> <li>• QuantiNova® Pathogen + IC</li> <li>• UCP Multiplex PCR</li> <li>• UltraRun® LongRange PCR</li> <li>• UCP HiFi</li> <li>• QIAseq® FastSelect™ rRNA removal for bacteria</li> <li>• QIAseq Stranded Total RNA Library Kit</li> <li>• QIAseq 16S/ITS</li> <li>• QIAseq FX DNA library kit</li> </ul> | <ul style="list-style-type: none"> <li>• QIAGEN CLC Microbial Genomics Module</li> </ul> |
| <ul style="list-style-type: none"> <li>• TissueLyser II</li> <li>• PowerLyzer® 24</li> <li>• Vortex adapters</li> </ul> | <ul style="list-style-type: none"> <li>• QIAcube Connect</li> <li>• QIAcube HT</li> <li>• QIASymphony SP</li> </ul>  | <ul style="list-style-type: none"> <li>• QIAamplifier®</li> <li>• QIAquant® qPCR</li> <li>• QIAcuity® digital PCR</li> <li>• Rotor-Gene® Q</li> </ul>  |  |

## PCR

- QuantiNova reagents offer ultrafast and sensitive detection, multiplex low-/high-abundance targets, room-temperature setup and visual pipetting-error prevention
- Microbial qPCR DNA assay kits provide highly sensitive and specific target detection of microbial species, virulence or antibiotic resistance genes. Targets available for panel customization

## Digital PCR

- Absolute quantification in samples with very high host DNA background levels, without the need for standards
- Nanoplate partitions allow individual reactions to easily detect a single positive – beyond the detection limit of standard qPCR
- Ideal for quantitative microbiome profiling in human biomedical research, environmental sample analyses and detecting microbial food contamination

## NGS

- Low-bioburden enzymes and unique dual indexing strategies enable accurate and unbiased results for bacterial ribosomal RNA removal and gene expression, 16S/ITS community profiling and enzymatic library preparation

## Data analysis

- QIAGEN CLC Microbial Genomics Module is a user-friendly analytics tool for microbial genomics and metagenomics analysis. It covers applications such as isolate characterization, functional metagenomics and antimicrobial resistance characterization



We get really good results using the QIAGEN DNA kits, with high DNA yields, which can be used for sequencing."

The gut microbiome affects a person's overall health and the effectiveness of some therapies. Dr. Hannah Wardill, Biomedical Research Fellow at the University of Groningen, uses QIAGEN kits to study host-microbe interactions for a personalized approach to minimize cancer therapy-associated toxicities.



QIAcuity One, Four and Eight dPCR instruments, processing up to 1,248 samples in one working day

## Optimized kits for sample preparation and challenging samples

### Soil

New PowerSoil Pro Kits use IRT and bead beating technology to isolate microbial DNA from all soil types and environmental samples including difficult samples containing a high humic acid content such as compost, sediment and manure.

### Water

PowerWater Kits isolate high-quality genomic DNA or RNA from a variety of filtered air and water samples, including turbid waters and Sterivex™ units. Kits include patented IRT for removal of salts, metals, humic substances and other organic materials.

### Biofilm

PowerBiofilm® Kits pair a unique bead beating and cell lysis technology with patented IRT for increased yields of inhibitor free DNA or RNA from all types of biofilms, including microbial mats.

### Fecal and microbiome

The new PowerFecal Pro, PowerMicrobiome and PowerViral product lines isolate high-quality, pure nucleic acids from stool, biosolids and gut material. Kits include IRT for removal of lipids, heme, lysed red blood cells and other inhibitory substances.

Nanoplate digital PCR on the QIAcuity brings a new level of precision to applications such as metagenomics quality control, human biomedical research, environmental sample analyses and detection of microbial food contamination.



For more information about QIAGEN's solutions for microbiome research, visit [qiagen.com/microbiome](https://www.qiagen.com/microbiome).

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual. QIAGEN kit handbooks and user manuals are available at [www.qiagen.com](https://www.qiagen.com) or can be requested from QIAGEN Technical Services or your local distributor.

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