

# Partner with QIAGEN Genomic Services

Access endless possibilities to propel your research



## Let our experts work for you

We have expanded our leading Sample to Insight solutions to provide a unique and cutting-edge service offering: QIAGEN Genomic Services. The outcome offers endless possibilities for you to discover, characterize and profile samples for basic research and even clinical applications.

Partnering with Genomic Services is a convenient and fast way for you to run a project and continue generating high-quality data when your in-house resources are constrained. Our expanded Genomic Service laboratories are located in Hilden, Germany and Frederick, USA and are equipped to do research work for you with perfectly tailored projects, efficient logistics and expanded expertise.

With a highly flexible offering, we can support your entire workflow or just the difficult or time-consuming parts of your project for any biology research area: translational research, biomarker discovery, clinical studies, disease-specific research, microbiome analysis and beyond. And because this expanded Genomic Services offering spans across so many research areas, the insights we generate are simply unique.

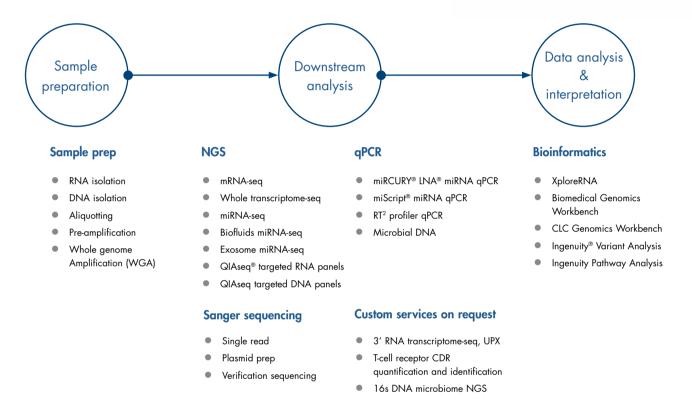
"Thank you for the extraordinarily friendly and professional guidance this morning. It was very helpful. Also a big compliment on the detailed documentation and documents included, supporting the detailed and comprehensive analysis – outstanding support and analysis!"

Satisfied client, working for a leading life science solutions provider





Genomic Services gives you access to an unparalleled and unprecedented spectrum of innovative technologies and bioinformatics solutions to accelerate your research. This offers a great alternative to investing in your own equipment, or simply allows you to test out a new technology before establishing it in your facility.



Our state-of-the-art labs in Hilden, Germany and Frederick, MD in the US take advantage of an extensive knowledge base with proprietary workflows to complete every job with highest efficiency and quality. We are able to accept samples from across the globe and provide the standardized results you need. Plus, access to QIAGEN R&D and manufacturing facilities allows quick preparation and delivery of custom kits, assays, products and protocols for use in your cutting-edge and fully customized service projects.

When you work with Genomic Services, you can trust that your data is safe. We operate secure IT facilities, infrastructure and data centers in Hilden and Frederick and also leverage a disaster recovery data center in Frankfurt. QIAGEN is staffed with 200+ highly trained IT professionals around the world and uses state-of-the art electronic surveillance and multi-factor access control systems. The QIAGEN Cyber Security Program follows best practices outlined in ISO27001.

Contact us for an initial, free discussion of your project at www.qiagen.com/ContactQGS

## Keep your research going, despite the obstacles

Every researcher encounters obstacles at some point, but these need not stand in the way of progress. Partnering with Genomic Services will propel your research forward, even if you are unable to do it alone. Perhaps you are missing the internal expertise and infrastructure to use a new technology or maybe you are facing time and cost constraints. Whatever your challenge, we are here to help. Our standard and custom service solutions will address each step of your workflow, so we can design a project that exactly fits your needs.

## What is your challenge? How we can help



Low amounts of RNA in your samples

#### **Experience**

We know the challenges and can optimize the outcomes. Since 2006, QIAGEN experts have profiled >200,000 samples. We help you get instant success with difficult, low-RNA content samples.



Precious samples - either small sample amounts or samples that are difficult to obtain

#### Competence

Our experienced scientists and technicians handle samples with care and use them optimally for NGS or qPCR applications. We make sure that you get the highest quality data from precious samples - you can focus on collecting the samples, and we will focus on analyzing them.



Variability due to preanalytical handling, often because you use samples from biobanks or sources where collection protocols are not uniform

#### **Protocols and Quality Control**

We work according to standard operating procedures optimized for each application and analyte type and conduct multiple QC checks to test sample quality, efficiency of extraction and amplification. We will help you determine outliers and technical pitfalls, so you can focus on interpreting the biological results.



Time pressure from project constraints

#### Top Technology and Flexibility

From small pilot projects to large screening studies with thousands of samples, we employ state-of-the-art LNA analysis and automation technology to deliver top results in record time. Our automated processes accelerate your projects and keep you at the forefront of science.



Need advice regarding optimal project setup, data analysis and results interpretation

#### Knowledge

During expert consultations, we advise you on project design, data filtering and read mapping, supervised vs. unsupervised analyses, as well as results interpretation, to ensure that you maximize biological insights from your samples. We help you get insights so you can make the right decisions. Plus, we develop new products and protocols in collaboration with customers to keep our Services cutting-edge.

## Access our unparalleled service offering

Exceptional results based on the highest quality samples

High-quality nucleic acids are key to producing the best results, and our extensive expertise in sample purification provides a strong foundation for your analysis project to succeed. Our optimized protocols and expert advice regarding sample collection and storage minimize pre-analytical variability. Plus, we perform multiple QC checks to assess extraction efficiency, monitor inhibitors and hemolysis and confirm the integrity, quantity and purity of each sample for successful downstream profiling such as sequencing or qPCR profiling.

Sample RNA/DNA	Isolation Services	NGS Services	qPCR Services
Total RNA / DNA		<b>~ ~</b>	<b>✓</b>
Fresh frozen tissue	<b>✓ ✓</b>	<b>✓ ✓</b>	✓
FFPE sections	<b>~ ~</b>	<b>✓ ✓</b>	~
Cells	<b>~</b>	<b>✓ ✓</b>	<b>✓</b>
LCM	<b>✓</b>	<b>✓</b>	<b>✓</b>
Whole blood (e.g., PAXgene®)	<b>✓ ✓</b>	<b>✓ ✓</b>	<b>✓</b>
Exosomes	<b>✓</b>	<b>✓</b>	<b>✓</b>
Liquid biopsies (e.g., serum, plasma, biofluids)	<b>~ ~</b>	<b>~ ~</b>	~

Summary of services available for various sample types.

The right analysis to answer your research questions

Whether you are looking to characterize global expression patterns or to uncover and validate noninvasive biomarkers, we offer cutting-edge RNA-seq and qPCR services coupled with advanced data analysis and bioinformatics evaluation. We can also validate your NGS results with unrivalled detection sensitivity and specificity. Our experts use proprietary LNA and/or RT<sup>2</sup> technology in genomewide screening and focused, customized PCR panels for a standardized workflow at every stage of your project.

The highly flexible service offering allows us to support your entire workflow or just part of your project for any biology research area.

Service	Description	
RNA isolation	Isolation of high-quality RNA (including miRNA) from difficult samples including FFPE, cells, exosomes and biofluids, for use in downstream expression analysis experiments	
DNA isolation	Isolation of high-quality DNA from various species for use in most downstream genomic applications	
Biomarker discovery	Comprehensive RNA profiling services by our RNA experts	
RNA-seq	NGS experiments of any size and with any RNA species using market-leading chemistry, for identification of splice variants and junctions, novel and antisense transcripts, gene fusions and more	
Targeted DNA-seq	Largest collection of predesigned panels suited for a wide range of needs, or fully customizable panels – just pick your genomic loci and we will validate your panel	
Sanger sequencing	Wide range of sequencing services, including single-read routine sequencing, sequencing verification, de novo sequencing, genome sequencing, as well as custom tailored special services	
qPCR	Validate NGS results with unrivalled detection sensitivity using LNA or RT <sup>2</sup> technology in screening or customized PCR panels for reliable validation in standardized workflows	
REPLI-g	Highly uniform whole genome amplification and quality assessment from small or precious samples	

### Advanced data analysis and bioinformatics evaluation

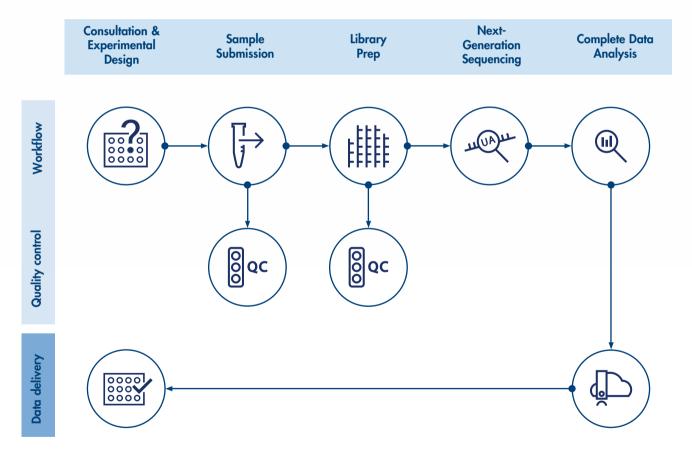
The culmination of every project is the delivery of an extensive report detailing results and summarizing our data analysis. We offer industry-leading applications for the analysis, interpretation and reporting of biological data. One of the most significant challenges in modern molecular methods is understanding raw data, and QIAGEN addresses this bottleneck with a portfolio of powerful tools and innovative applications based on cutting-edge bioinformatics. We are also happy to discuss with you the biological significance of your project results and appropriate next steps, like functional analysis. For larger service projects, our expert bioinformaticians offer a customized analysis and walk you through the results.



See for yourself - download an example report at www.qiagen.com/ServiceReport

### A transparent and interactive experience

Each project begins with a free consultation with an expert to design an experimental setup that best meets your needs and budget. Next, we complete a detailed sample submission form, ensuring that all experimental details and subsequent analyses are clearly defined. From the initial consultation through delivery of the final report, you can expect a transparent and interactive experience. Regular progress checks ensure that the outcomes match the work commissioned. You can track your project live on our website, and receive data and visualize the results via Xplore RNA cloud. A personal teleconference with one of our scientists is included in every QIAGEN Genomic Services project. This expert will walk you through your data and help you decide on next steps such as how to design and plan downstream validation studies.



Example workflow for a QIAGEN Genomic Services project.

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