

# Shotgun Metagenomic Sequencing



## Accurate Detection of Microbes

Recent research suggests a close relationship between the composition of the human microbiome and the occurrence of a variety of diseases, including the response towards pharmaceutical drugs. According to recent findings, this relationship has been particularly shown for the gut microbiome, but it can also be extended to other body sites, such as the skin, mouth, or nose. Furthermore, microorganisms are involved in many biochemical reactions in the environment and represent important constituents of environmental ecosystems. Understanding microbial functions in specific microbiomes or host-microbe relationships, offers great potential for new therapeutic discoveries, especially for microbes, which are difficult to cultivate.

Shotgun metagenomic sequencing analyzes the complete DNA content of a sample and allows accurate detection of microbes (bacteria, archaea, fungi, protozoa, viruses, etc.) down to species level. Accordingly, functional genes encoding specific metabolic enzymes can be analyzed. Shotgun metagenomic sequencing is the best choice when microbiomes need to be thoroughly characterized, including accurate identification of microbial species and their functional repertoire.

**We offer different Shotgun Metagenomic Sequencing products to address a variety of research questions.**

Want to Discover More?

We invite you to take a look at our website.  
[www.cegat.com/shotgun-metagenomic-sequencing](http://www.cegat.com/shotgun-metagenomic-sequencing)



## Explore Our Product Portfolio for Shotgun Metagenomic Sequencing

	Shotgun Metagenomics Classic	Shotgun Metagenomics Flex
<b>Species</b>	Bacteria, archaea, fungi, protozoa, (viruses)	
<b>Sample types</b>	Isolated DNA, stool	Various sample types upon request
<b>Target</b>	Genomes of multiple prokaryotic and eukaryotic organisms	
<b>PCR amplification</b>	Yes	Depending on the chosen protocol
<b>Read length</b>	2 x 100 bp	Flexible
<b>Sequencing platform</b>	Illumina	
<b>Output</b>	10 million clusters (2 Gb)	Flexible
<b>Included deliverables</b>	Project report & FASTQ files	

Applications of shotgun metagenomic sequencing are diverse and include:

- ✕ Disease monitoring
- ✕ Microbial biomarker detection
- ✕ Drug development
- ✕ Characterization of environmental microbiomes
- ✕ Discovery of new microbial species (de novo assembly)





## About Us

CeGaT was founded in 2009 in Tübingen, Germany. Our scientists are specialized in next-generation sequencing (NGS) for genetic diagnostics, and we also provide a variety of sequencing services for research purposes and pharma solutions. Our sequencing service portfolio is complemented by analyses suited for microbiome, immunology, and translational oncology studies.

Our dedicated project management team of scientists and bio-informaticians works closely with you to develop the best strategy to realize your project. Depending on its scope, we select the most suitable library preparation and conditions on our sequencing platforms.

**We would be pleased to provide you with our excellent service.  
Contact us today to start planning your next project.**



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