Investigate the genetic potential of complex microbiomes with our end-to-end metagenomics analysis solutions

- scalable for large data sets
- interactive visualization
- actionable results
Benefit From Our Solutions, Expertise and Personalized Service

- web-based comparison and analysis platform
- automated and reproducible microbiome analyses
- comprehensive microbiome analysis software
- interactive at unprecedented speed
- KEGG pathways built-in
- customized metagenomics analysis service
- full report including visualization and methods
- insightful and actionable results
The metagenomics comparison and analysis platform MORPHEUS enables users to perform automated and reproducible microbiome analyses without the need for local compute infrastructure. Users can focus on data analysis and data interpretation instead of data handling and processing. MORPHEUS takes care of the preprocessing required for MEGAN6 Ultimate Edition.

- Immediate results and visualization of taxonomy and function in your browser (even on a tablet or phone)

- Fully compare datasets with each other, easily add new results any time when they become available

- No data preprocessing required and full compatibility with MEGAN6 Ultimate Edition

- Easy to use, secure web interface, scalable platform and open for third-party analysis technologies

**workflow**

<table>
<thead>
<tr>
<th>Client</th>
<th>Lab</th>
<th>Computomics</th>
<th>Client</th>
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</thead>
<tbody>
<tr>
<td><img src="#" alt="Samples or DNA" /></td>
<td><img src="#" alt="Sequencing" /></td>
<td><img src="#" alt="Analysis" /></td>
<td><img src="#" alt="Interactive Report" /></td>
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MEGAN6 Ultimate Edition

MEGAN (MEtaGenome ANalyzer) is our metagenomics analysis software which allows visual and quantitative exploration of microbiomes on a desktop computer. Your data is simultaneously annotated for taxonomic and functional composition to a wide range of databases.

- The world’s only software for interactive metagenomics data analysis
- DIAMOND integration enables unprecedented speed: up to 10,000 times faster than BLASTX
- KEGG biochemical pathways and other databases for functional annotation included
- Scripting functionality allows you to create fully automated, repeatable analyses and plots
- Unique plotting functions for interpretable results across all of your metagenomics samples
With our Metagenomics Analysis Services we support all stages of your research project: from experimental design to data collection and analysis and a written report.

We work with our customers to understand their research questions and help plan the experiment. By having a deep understanding of the customers goal we give recommendations on the number of required samples, of technical and biological replicates, of sequencing technology and required depth.

We perform bioinformatics and statistics analysis applying machine learning methods where applicable. The final project report includes powerful visualizations, a full methods section and a summary of the main findings. The results we deliver are actionable and insightful.
**Gastrointestinal microbiome and dietary protein**

**Challenge:**
Our customer wanted to investigate the effect of dietary protein on the gastrointestinal (GI) microbiome and performed deep shotgun sequencing for a large number of samples. This amounted to 1 terabyte DNA sequencing data making analysis extremely challenging.

**Solution:**
We used DIAMOND the ultrafast protein aligner to annotate the sequence data to the most comprehensive protein database NCBI NR. This would have been prohibitive with other methods. We then used MEGAN6 Ultimate Edition to summarize results for all taxonomic ranks, taxa and KEGG biochemical pathways. Our metagenomics analysis platform MORPHEUS enabled the customer to interactively explore the results.

**Benefits:**
The combination of DIAMOND, MEGAN6 Ultimate Edition and MORPHEUS enabled rapid data processing by Computomics and interactive analysis by the customer without the need for a local compute infrastructure.

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**Customer Quote**

“MORPHEUS was quick and easy to use and the included analysis apps delivered important information about my study. I was able to download all data tables and perform additional analyses in R.”

Large pharmaceutical company