

# Knowledge-Driven NGS Solutions

Tools Can Analyze Your Data. Our Experts Give Meaning To It.

Today, up-to-date expert knowledge is the key to generating impactful biological insights. To address this unavoidable need, we established an extensive network of outstanding scientists, covering all research fields relevant to NGS. Together with a project-specific expert panel ('think tank'), we will analyze your data in a scientifically proven manner to provide you with meaningful, knowledge-driven results.

## Workflow



### First Meeting & Project Discussion

A typical project begins with a first meeting where you present your ideas in a project discussion. Together, we determine the aims and basic requirements of the project.



Take a look at our experts @ [ecseq.com/expert-network](http://ecseq.com/expert-network)

**Expert Panel & Strategy Development**  
We enquire with our network of scientists and compose an expert panel ('think tank') that fits the project. Next, we develop a workflow for optimal data analysis.



### Strategy Presentation

These strategies are presented to you in a detailed analytic report followed by a comprehensive discussion.



### Decision

Finally, you choose the data analysis strategy that suits you best. The consensual strategy can be either accomplished as a data analysis service or as a software solution.

## Data Analysis



**Data Analysis** comprises 1) the implementation of the chosen analysis strategy by our bioinformatics specialists and 2) its application to project data.

### Expert Interpretation & Customer Feedback

Our experts review and interpret the results. Customer feedback is continuously incorporated to extend and modify the analysis.



**Significant Findings:** Together with the interpretation of the data and a discussion of significant findings, you get a full report, ready-to-publish figures, result tables, and all intermediate files.

## Software Solution

**Software Solution** comprises the implementation of the chosen strategy as reusable software.



### Prototyping and Customer Feedback

A prototype of the software will be designed, implemented, and benchmarked. Permanent customer feedback ensures that the product fits the requirements. Optimal functionality is assured by extensive product testing by our team as well as our panel of experts.



**Software Product:** The final software product is delivered and can be deployed to the customer's environment or to the cloud, ready-to-run.



Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages


## Our Solution

We at ecSeq Bioinformatics combine adaptive bioinformatics with expert knowledge from our extraordinary network of scientists from various fields. We offer the advantages of both, academia and industry:

- + scientifically sound analyses
- + approved and interpreted by experts
- + timely delivery

	Core facilities or academic collaborators	NGS services companies
up-to-date knowledge	+	-
costs	+	-
accessibility	-	+
support	-	+
customizable pipelines	+	-
processing time	-	+

## Features

 <p><b>Expert Solution</b> Up-to-date scientific knowledge from our network of experts</p>	 <p><b>Various Applications</b> Get the optimal solution to your specific requirements</p>	 <p><b>Rapid Insight</b> A skilled team of professional bioinformaticians will rapidly implement the solutions</p>
 <p><b>Trustworthy Results</b> Our solutions follow best practices, are benchmarked, and tested</p>	 <p><b>Reproducible</b> Reiterate the analysis at any time with new data</p>	 <p><b>Run Anywhere</b> Standalone data analysis software or cloud computing solutions</p>

## NGS Applications

We have experts to support a wide range of bioinformatic analyses such as:

- DNA-seq
  - Genome Assembly
  - Variant Analysis
  - Structural Variation Detection
- Epigenetics
  - DNA Methylation Analysis
  - ChIP-Seq Data Analysis
- RNA-seq
  - De-novo Transcriptome Assembly
  - Transcripts and Isoform Discovery
  - Differential Expression Analysis (Genes, Isoforms, and Exons)
  - Detection of Circular RNAs
- small RNA-seq
  - Expression Quantification
  - Differential Expression Analysis
  - Small RNA Gene Prediction
- Metagenomics and Biodiversity Analysis

Contact one of our scientists and discuss your project!

Use the callback service on our website [www.ecseq.com](http://www.ecseq.com) or write to [support@ecseq.com](mailto:support@ecseq.com)

## About Us

CCR Bio-IT is a specialist in implementing robust and reusable software tools for NGS data analysis. ecSeq Bioinformatics is a solution provider focusing on high-throughput sequencing technologies. The company provides data analysis and bioinformatics training for various genomics applications. 'Knowledge-Driven NGS Solutions' is a joint offering from CCR Bio-IT and ecSeq Bioinformatics.

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