CBmed
BIOMARKER RESEARCH

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CBmed
is an internationally recognized biomarker research center with a focus on cancer, metabolism and inflammation.
www.cbmed.at

In cooperation with

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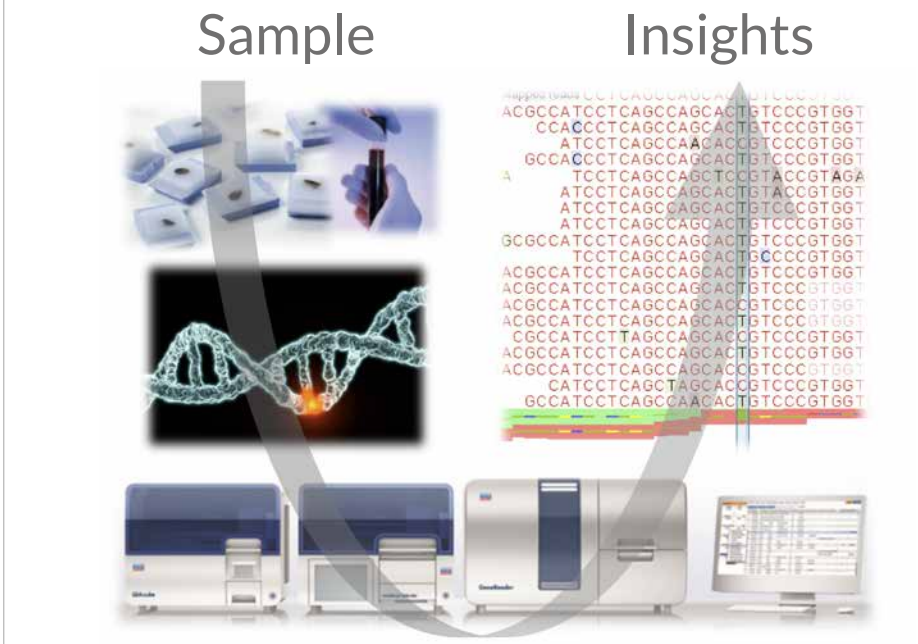
COMET
Competence Centers for Excellent Technologies

Next-Generation Sequencing (NGS)



Genetic alterations of diseased organs

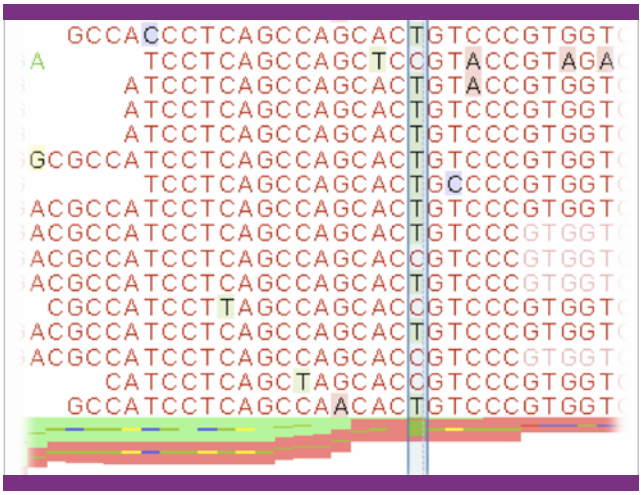
NGS provides powerful **insights into genetic mutations** and **molecular networks underlying disease** for a broad set of genes. NGS technologies will revolutionize a number of areas in clinical practice, including the **validation and analysis of sequencing-based biomarkers,** a tool increasingly relevant for diagnosis in multiple disease areas and for the selection and monitoring of **therapeutic treatments.**

We aim to **develop methodology** and complete **"Sample-to-Insight" workflows** for diagnostic NGS including the pre-analytical workflow steps such as sample collection, preservation, transport, storage and preparation as well as quality control of the samples.

Complete **standardized diagnostic** workflows from sample collection to NGS and final reports for physicians and patients will be a core prerequisite to exploiting the full potential of NGS and to successfully **introduce NGS-based biomarkers into clinical routine.**

Our Expertise

- Experience in clinical and routine genetic sequencing analysis
- Excellent biospecimen quality according to relevant molecular diagnostics regulations e.g. ISO15189
- Participation in EU working groups regarding quality regulations for companion diagnostics



Our Resources

- Qiagen GeneReader CBmed was the first partner worldwide to receive the GeneReader NGS System from QIAGEN. The GeneReader NGS system is the first complete Sample to Insight NGS solution allowing a seamlessly intergrated workflow from sample preparation, quality control, sequencing, analysis and reporting.
- Close collaboration with the Institute of Pathology at the Medical University of Graz provides patho-morphological characterization of tissue samples, tissue sample quality control and access to complementary methodologies such as molecular diagnostics services and expression profiling.

QIAGEN GeneReader NGS System

Current Projects

- Comparison of gene mutations in primary tumors, distant metastases and blood with the aim of validating biomarkers from liquid biopsies
- Patients cohorts (melanoma, lung cancer and colon cancer)
- Investigation of the mutational spectra of primary tumor, fcNA (free circulating nucleic acid) and metastases including prospective follow up studies.

Tissue and liquid biopsy

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