

# Lighthouse Group – Omics, Genomics and Liquid Biopsy

Our overarching aims are: 1) developing cutting-edge methods with focus on proteogenomics and liquid biopsy, 2) improving patient care with MTBs as core element and 3) setting up a decentralized core facility for BZKF members.

**Speaker:** Prof. Dr. Rainer Claus, Augsburg

## Concept & Achievements

### Concept & Vision

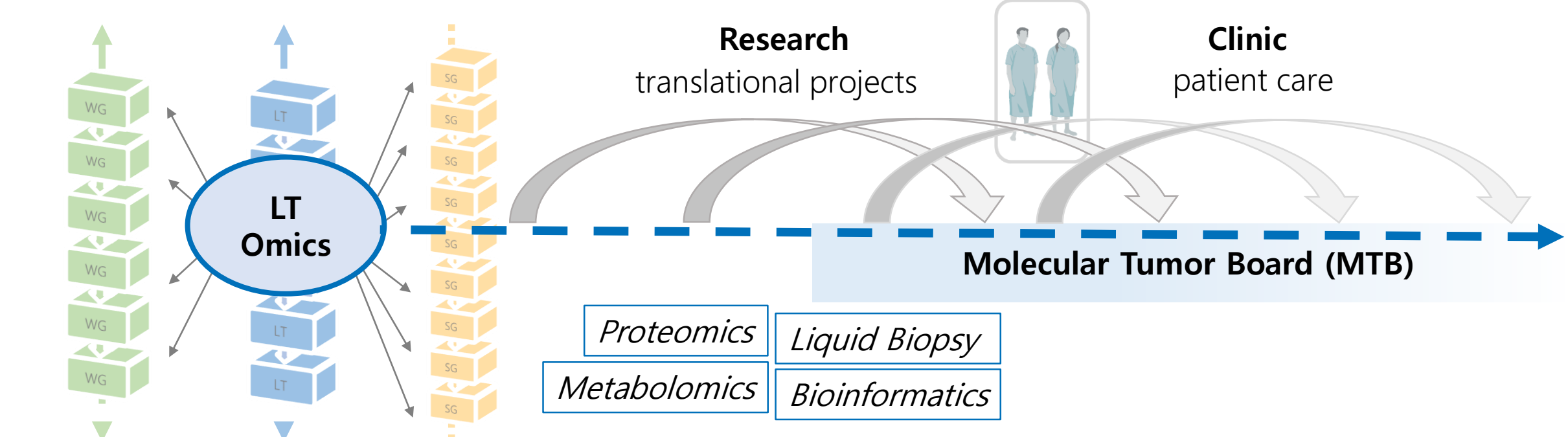
The lighthouse Omics (LT Omics) is interlinked with BZKF working groups (WGs), other LTs, and study groups (SGs). This creates a unique setup for establishing and providing cutting-edge methods. Thus, the LT Omics enables as hub for translational research an effective transition from oncological research to patient care.

Our **Vision** is to use omics and liquid biopsy to further develop future precision oncology via MTBs through the following aims:

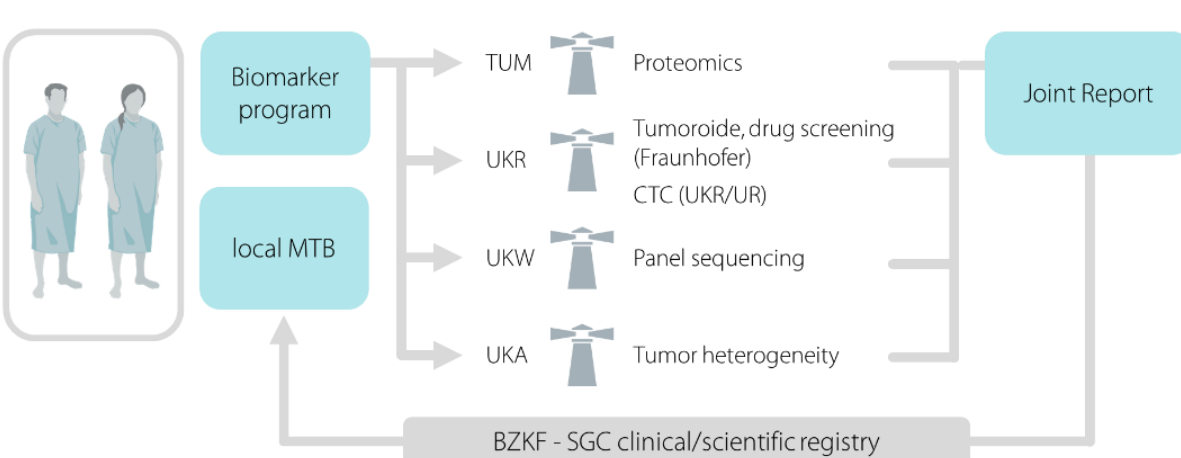
1. Use-case projects as basis to improving **patient care through innovative techniques**,

2. **Next generation MTBs** for patients in Bavaria with novel functional molecular methods, and

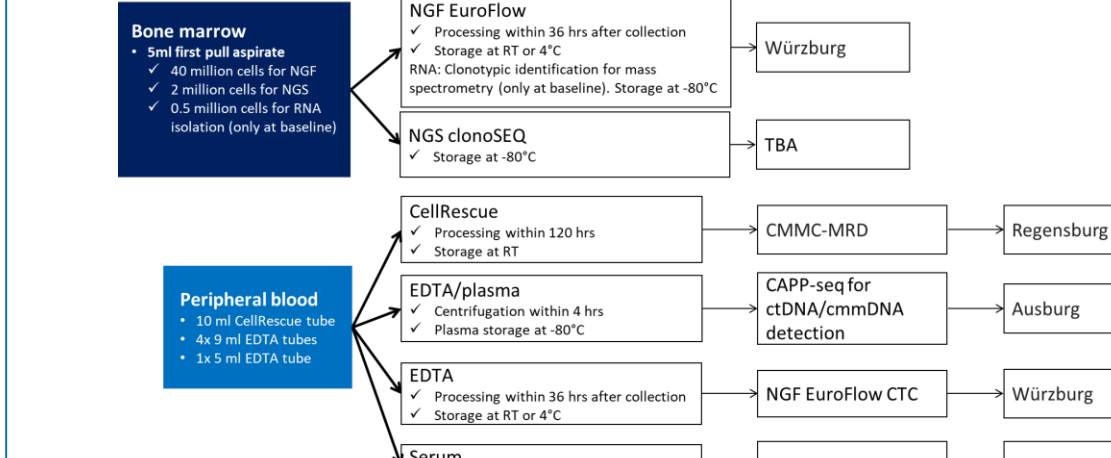
3. **BZKF decentralized core facility (BDCF)** to provide information for all BZKF members.



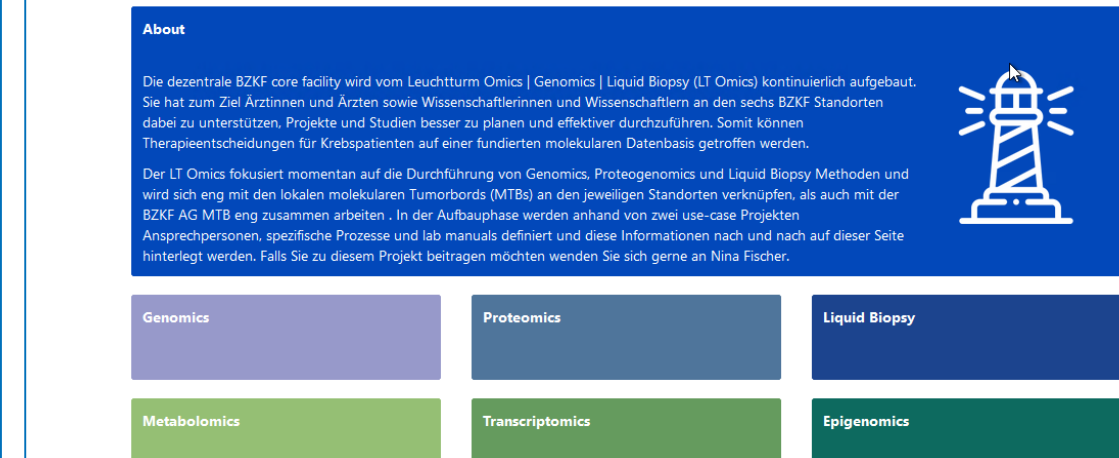
**Use-case project I:** Proteomics and liquid biopsy guiding therapy decisions of MTB clinicians in rare salivary gland cancers. Blueprint for setting up studies for other difficult-to-treat cancer types.



**Use-case project II:** Assessing MRD and characterizing circulating multiple myeloma cells (CMMCs) in collaboration with SG multiple myeloma and industry partner Menarini Silicon Biosystems.



**BZKF decentralized core facility (BDCF):** Bundle methods and expertise, provide standards and manuals at one place (confluence site) accessible to all BZKF members to facilitate collaborative projects.



## Future Milestones

- » **Conduction of use-case clinical trials**
- » **Refinement of developed proof-of-concept methods (proteomics, drug screening, LBx, ...)**
- » **Transfer developed techniques and workflows to further rare and difficult-to-treat cancers**
- » **Extension of the repertoire of molecular characterization (metabolomics, bioinformatics, ...)**
- » **Further integration of suitable methods into and setting up a next generation of MTBs in Bavaria**
- » **Expansion of BZKF decentralized core facility**

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