Circulating tumor DNA (ctDNA) is emerging as a biomarker to assess Minimal Residual Disease (MRD) in patients with solid tumors. These standards will be made publicly available to maximize their utility and future evolution.

There is also uncertainty regarding optimal incorporation of ctDNA-based MRD monitoring into routine clinical practice. The GUIDE.MRD consortium partnership brings together experts from the academic, pharmaceutical, and biotechnology sectors to develop ctDNA-based MRD assays to guide treatment selection in patients with solid tumors (CRC, PDAC, NSCLC).

GUIDE.MRD is centered around 3 key priorities (Fig. 7):

1. Technical considerations for ctDNA capture and assay development.
2. Clinical validation of top performing ctDNA assays against clinical and observational benchmarks.
3. Communication and dissemination of funding, governance, statistical, treatment, and regulatory expertise.

The overall aim is to determine the utility of ctDNA assays as a clinical decision tool for oncologists.

For a copy of this poster: Visit www.guidemrd-horizon.eu

GUIDE.MRD priorities

- Drive global standardization of ctDNA diagnostics and harmonized clinical validation of MRD in patients with solid tumors.
- Integrate ctDNA as a clinical decision tool in multi-modal clinical practice to support optimized treatment in patients with solid cancer.

GUIDE.MRD impact on practice

- Deliver global standardization of ctDNA diagnostics and harmonized clinical validation of MRD in patients with solid tumors.
- Integrate ctDNA as a clinical decision tool in multi-modal clinical practice to support optimized treatment in patients with solid cancer.

GUIDE.MRD overview

- GUIDE.MRD is a public/private funded partnership under the Innovative Health Initiative (IHI) umbrella and is funded for a 4-year period.
- GUIDE.MRD is coordinated by the University Medical Center Hamburg-Eppendorf, Hamburg, Germany.
- The project consortium encompasses together experts from the academia, pharmaceutical, medical technology, and patient advocacy sectors to advance the accurate and reliable detection of MRD by ctDNA-based MRD assays.
- Consortium partners from all sectors are outlined in Figure 4.

GUIDE.MRD studies

- The prospective roadmap is laid out in Figure 7 and will cover a time-frame of 5 years.

GUIDE.MRD roadmap

1. Development of a decision support tool based on the clinical validation strategies based on the IHI ctDNA assay.

GUIDE.MRD partners

- Visit www.guidemrd-horizon.eu for a complete list of partners.

Tumor-guided

- Personalized therapy decision making of the tumor
- Requires tumor tissue and matched normal
- Assays tumors (e.g. NGS, IHC)
- Operationally complex
- Limited
- Biological

Non-tumor-guided

- Requires assays with low sequencing error, sufficient plasma, and proven knowledge of mutant fractions
- Biologically specified

Figure 3. ctDNA assessment and clinical utility

Catherine Alix-Panabières, Maria Karasarides, Martin Reck, Daniel J. Smit, Estevan Kiernan, Groesbeck, Großhansdorf, Germany; Nuria Malats, Miescher, Barcelona, Spain; Maria Karasarides, Estevan Kiernan, Barcelona, Spain; Catherine Alix-Panabières, Martin Reck, Daniel J. Smit, Groesbeck, Großhansdorf, Germany; Maria Karasarides, Estevan Kiernan, Nuria Malats, Miescher, Barcelona, Spain.

With all the current tumor liquid biopsy assays that are in early-stage clinical testing or available for research use, there is currently no universally accepted reference standards by which these assays can be benchmarked.

There is also uncertainty regarding optimal incorporation of ctDNA-based MRD monitoring into routine clinical practice.