

ONCOASSAY® A (In precancerous phase)

Method: using modern and accurate genetic sequencing technology (NGS) on the subjects' whole blood extracted DNA, multigene panel analysis for identification of individuals with cancer gene variants is performed.

Achievement: determination of cancer risk in cases with familial cancer history.

ONCOASSAY® B (In primary cancer)

Method: using hybrid technology (immunohistochemical and genomic tests) based on patient's FFPE sample for more accurate characterization of tumors and the respective molecular pathways.

Achievement: planning personalized treatment strategies, response prediction to immunotherapy, hormonal therapy, and targeted therapy as well as recurrence chance.

ONCOASSAY® C (In metastatic cancer)

Method: using FFPE sample (hybrid technology) using FFPE sample (hybrid technology) regarding both primary and metastatic tumor for characterization of specific molecular pathways of metastatic tumors, characterization of tumor dynamics, and tumor formation compared to primary tumor leading to precision molecular characterization of tumors.

Achievement: Planning personalized treatment strategies, response prediction to chemotherapy, immunotherapy, hormonal therapy, and targeted therapy as well as monitoring treatment effectiveness.

ONCOASSAY® M (In treatment and post-treatment phase)

Method: using liquid biopsy samples, Circulating Tumor Cells (CTCs) and/or Circulating Cell-Free-DNA (CCFD) for molecular and cellular characteristics of tumor cells and investigation of tumor progression.

Achievement: tracking of CTCs, monitoring treatment effectiveness, planning personalized treatment strategies, response prediction to chemotherapy, immunotherapy, hormonal therapy, and targeted therapy.

References

1. "Cancer." World Health Organization, World Health Organization, 2018, www.who.int/news-room/fact-sheets/detail/cancer.
2. Tsimberidou, Apostolia-Maria, et al. "Long-term overall survival and prognostic score predicting survival: the IMPACT study in precision medicine." *Journal of hematology & oncology* 12.1 (2019): 145.
3. Schwaederle, Maria, et al. "Impact of precision medicine in diverse cancers: a meta-analysis of phase II clinical trials." *Journal of clinical oncology* 33.32 (2015): 3817.
4. Passarino, Giuseppe, Francesco De Rango, and Alberto Montesanto (2016). "Human longevity: Genetics or Lifestyle? It takes two to tango." *Immunity & Ageing*. 1-6. <https://dx.doi.org/10.1186%2F12979-016-0066-z>
5. Fattahi, Sadegh, et al (2019). "LncRNAs as potential diagnostic and prognostic biomarkers in gastric cancer: a novel approach to personalized medicine." *Journal of Cellular Physiology*. <https://doi.org/10.1002/jcp.29260>.

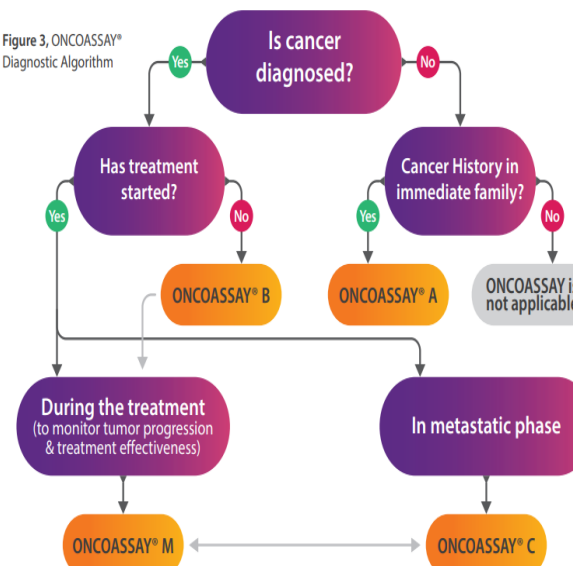
► Walking through the edge of science and technology for personalized cancer therapy

ONCOASSAY®

Why ONCOASSAY®?

- Indicating the best therapeutic strategy and treatment regimen
- Targeting development of new pharmaceuticals
- Presenting novel application for classic pharmaceuticals
- Performing detailed risk assessment of therapies
- Enhancing specificity of cellular and molecular characterization
- Applying high-quality and high-sensitive diagnostic technologies
- Utilizing new discovered genetic factors by latest international investigations
- Estimating tumor functionality by investigation of tumor-specific signaling pathways
- Using advanced and updated databases such as Cambridge and Dusseldorf databases.
- Using non and/or minimal invasive methods

Figure 3, ONCOASSAY® Diagnostic Algorithm



► Tailoring the right therapeutic strategy specifically designed for your patient

Who are we?

International Center for Personalized Medicine (ICPM P7MEDICINE) was founded in 2018 by a group of scientists, who have precious knowledge and brilliant history on genetics, medicine and cell/stem cell therapy in worldwide. Our aim is to light on more efficient treatment choices helping physicians while dealing with complicated cases such as different kinds of cancer, using the latest clinical diagnostic and prognostic methods, devices, our genetic knowledge and unique analysis algorithms.

Why is personalized Medicine important in oncology?

Nowadays, cancer is among the most significant health problem and the second major cause of death worldwide. According to WHO, 9.6 million people died because of cancer in 2018, which is predicted to increase to more than 13 million by 2030¹. According to the latest clinical studies, it has been demonstrated clinical outcomes of personalized medicine approaches significantly outweigh those achieved by conventional treatment strategies in cancer patients (Figure 1). Moreover, many patients undergo recurrence or metastatic conditions even after tumor resection^{2,3}. It has been demonstrated that just like lifestyle and environmental factors, genetic background also plays an important role in malignancy formation⁴. Additionally, therapeutic response is not consistent among patients with a certain type of cancer that are treated with the same regimens. It is strictly affirmed that genetic and molecular factors should be taken into account while wrestling with cancers⁵.

BR/OC/GE/3F/DA/IR/E/0221/V01

ONCOASSAY®

ONCOASSAY® is one of our innovated precise personalized medicine approaches, especially designed for the prediction and treatment suggestions of cancer in people with familial history and/or creating individual-based strategy for cancer patients in different stages.

Using the most advanced molecular and cellular technologies, ONCOASSAY® investigates the individual tumor as a heterogeneous histologic and genetic tissue, based on patient's tumor biology. To find the most functional types of mutations, complete transcriptional and translational analyses are conducted. There will be a team of oncologists, geneticists, and molecular biologists by patient's side in order to define the best treatment strategy.

As an important feature of ONCOASSAY®, patient's conventional clinical data is converted to digital format and combined with all the molecular bioinformatic data, leading to a rich and concentrated electronic health file for each patient.

Based on diagnostic phase, ONCOASSAY® is divided into 4 different services of ONCOASSAY® A, B, C, and M, each could have Basic, Advanced, and Premium versions according to the required extent of analysis.

What are the benefits of ONCOASSAY®?

- Enhanced treatment effectiveness (including survival outcomes)³
- Improved quality of life
- Reduced side effects
- Accessibility
- Precise prediction of recurrence
- Prediction and diagnosis of cancer formation at early stage

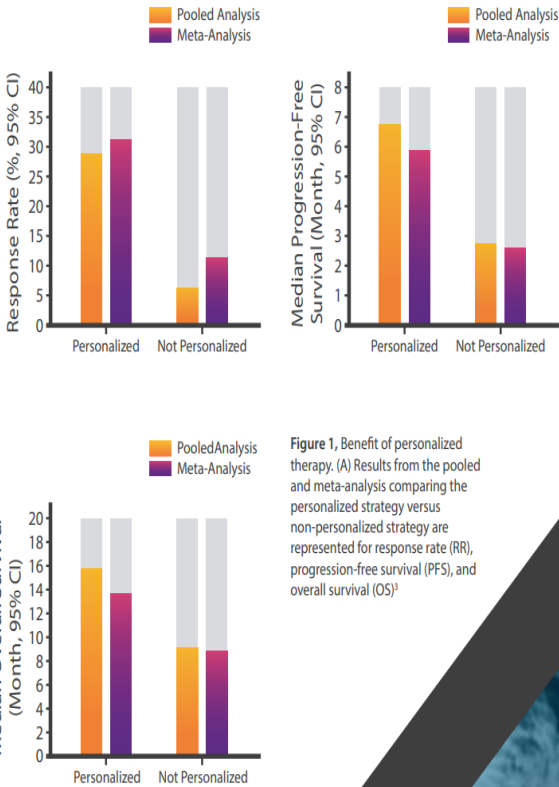


Figure 1, Benefit of personalized therapy. (A) Results from the pooled and meta-analysis comparing the personalized strategy versus non-personalized strategy are represented for response rate (RR), progression-free survival (PFS), and overall survival (OS)³

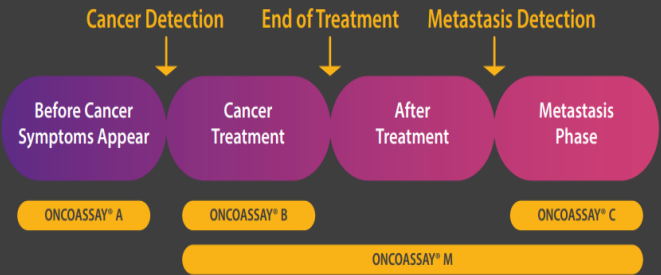


Figure 2, ONCOASSAY® Division

► Toward fulfilling the precision medical dream in cancer

