HYPMED

FINDING BREAST CANCER.
SAVING LIVES.

HYPMED: Digital Hybrid Breast PET/MRI for Enhanced Diagnosis of Breast Cancer

The EU funded project HYPMED aims to develop a new PET/Radiofrequency (RF) insert that will vastly improve breast cancer imaging and allow minimally invasive targeted biopsy through a combination of high-resolution/ultra-high sensitivity PET and structural and functional MR.

A multidisciplinary European consortium made up of ten partners from leading universities, research organisations and industry has recently started their ambitious research initiative.

With the new insert, any regular clinical MR machine can be turned into a hybrid system when required. The insert will be created by integrating an innovative and fully digital MRI-transparent PET detector into a novel multichannel PET-transparent MRI surface coil.

The impact of this technology on breast cancer diagnosis, prediction, and monitoring/assessment of treatment response will be evaluated by a clinical study that employs established and novel PET tracers in 250 patients. Imaging data will be correlated with established and novel molecular biomarkers and results will be compared to those obtained from whole-body PET/MRI and PET/CT.

Through the improved selection of appropriate and individualised treatment, the molecular and functional PET-RF imaging developed by the HYPMED project will lead to improved survival and improved quality of life for women with breast cancer.

Once HYPMED is successful, the project may expand this approach to other applications such as prostate cancer or cardiac hybrid imaging, and introduce a paradigm shift in the field of PET/MR hybrid imaging as a whole.

The proposal for the HYPMED project received the highest score possible from the Horizon 2020 evaluators, which further indicates the major impact this project is expected to have on the field of hybrid imaging as well as on breast cancer diagnosis and treatment response monitoring.

For more information contact HYPMED's project manager Pamela Zolda at pzolda@eibir.org.

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CONSORTIUM

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