

## Medical Devices

# Stereotactic device for the treatment of breast cancer with radiotherapy

A research group of the Andalusian Public Health System has developed a device for immobilization that improves breast cancer treatment with conventional radiotherapy and is suitable for SBRT and magnetic resonance.



## Description of the offer

Movements of the body make difficult to concentrate the radiation in the target volume to be irradiated when applying a radiotherapy treatment. To avoid them, there are currently various types of immobilization devices whose purpose is to immobilize as best as possible the chest or the breasts of a patient. Such devices provide sufficient patient immobilization for conventional radiotherapy treatments. However, if SBRT (Stereotactic Body Radiation Therapy), where very high doses of radiation are dispensed in very few sessions, is to be used, it is essential to minimize the amount of radiation received by the tissues surrounding the target volume. In this context, it is crucial to achieve better patient immobilization than those provided by the presently known devices.

Our research group has designed an innovative stereotactic immobilization device that allows increasing the reproducibility of the location of breast tumors among radiation treatment machines (linear electron accelerators) and image acquisition machines (TAC, PET and MRI). The device mainly consists of a rotating platform for pelvic support connectable to a truncated inclined plane for the support of the back and a solidary arm for holding the arms.

This device will improve the treatment of breast cancer with conventional radiotherapy, non-invasive fiducial breast SBRT and supine imaging of patients with suspected breast cancer.



## Advantages of the offer

1. **Reproducibility.** Fixing the pelvis by controlling the position of the perineum on a rotating lower platform that also facilitates the placement of **patients with reduced mobility.**
2. Ensures the **immobilization** of the patient **more precisely** than the usual devices.
3. Comprises an **arm support** that allows positioning the patient for a more effective and comfortable treatment.
4. Includes a stereotactic positioning system on the sides and an ad hoc arc.
5. Compatible with the geometry of the resonances, with anchors for antennas, and does not produce alterations in the magnetic fields of the same.



## Intellectual Property

This technology is covered by a Spanish patent application with the possibility of international extension.



## Objectives

We are looking for a partner interested in a license and/ or a collaboration agreement to further develop and exploit this innovative technology.



## Classification

Area: Medical devices  
Pathology: Oncology / Radiology