

# Rack for Image-Guided Fine Needle Aspiration (FNA) Marking

## UTILITY MODEL

ES1078517 (U)

**Priority Date:** 2013/01/11

**Owner:** Servizo Galego de Saúde (SERGAS)

**Inventors:** María del Carmen Bermúdez Calvar, Alejandro Cerdeira Arias, María del Carmen Villanueva Rodríguez and Gonzalo Maceira Galarza.

## BACKGROUND

Fine needle aspiration (FNA) is a medical procedure whose purpose is obtaining cellular samples from a specific area of the body, using images obtained by Computerized Axial Tomography (CAT) techniques as guidance. As a first approach, the FNA team generally uses centred lines of CAT for guidance in order to mark the desired area prior to the puncture and as a second approach, an external radio-opaque metallic marker, such as a needle or a clip, is used. However, these markers are the only external reference and give limited information regarding the best way to access the tissue of study. The access should be very precise to avoid several associated risks, such as puncturing other organs, repetition of CAT images (which implies exposing the patient to higher levels of radiation), and the need for more punctures to obtain a valid tissue sample.

## ACHIEVEMENTS AND RESULTS

In order to avoid associated risks, a new external radio-opaque marker in the form of a rack with ten standardized

points of reference (1 cm of distance) has been designed. The rack has been manufactured in silicone, an inert material, to avoid allergic reactions. Moreover, it can also be easily cleaned and sterilized for repeated uses in different patients.

## COMPETITIVE ADVANTAGES

The new rack model allows to overcome the previously described disadvantages of the FNA technique by:

- Reducing the number of CAT repetitions needed, minimizing radiation dose without reducing diagnosis capacity.
- Offering a variety of approaches in the same CAT image, allowing the physician to choose the best approach to the tissue of interest.
- Reducing the number of punctures needed to obtain a valid tissue sample.

Furthermore, the rack has several added features:

- It can be easily cleaned and sterilized.
- It presents a graduated scale that allows measuring the distance between marks and helps to standardize the process of CAT-aided FNA.

## COLLABORATION OFFER

Collaboration for further development and licensing of the technology are offered.



The design of the rack makes it ideal for the FNA technique, as it has been designed to reduce to the minimum problems of this procedure for patients.

## CONTACT INFORMATION:

Nerea Alonso Sousa  
Innovation & Technology Transfer Unit  
Fundación Biomédica · IIS Galicia Sur

**Tel:** +34 986 217454

**E-mail:** [nerea.alonso.sousa@sergas.es](mailto:nerea.alonso.sousa@sergas.es)

**Webs:** [www.fundacionbiomedica.org](http://www.fundacionbiomedica.org) [www.iisgaliciasur.es](http://www.iisgaliciasur.es)



Hospital Álvaro Cunqueiro  
Estrada Clara Campoamor, 341  
36312 Vigo, Pontevedra - SPAIN