Molecular imaging involves specialised instrumentation, used alone or in combination with targeted imaging agents, to visualise tissue characteristics and/or biochemical markers. The data generated from molecular imaging studies can be used to help understand biological phenomena, identify regions of pathology, and provide insight regarding the mechanisms of disease. At the Molecular Imaging Unit, we offer state-of-the-art techniques such as Positron Emission Tomography (PET), Computed Tomography (CT), Ultrasounds (US) and Densitometry (DEXA).

**Core Unit**

Core Unit Head
Francisca Mulero

Technicians
Elena Andrés (until July), Guillelmo Garauait (since April) (CT), Luricia García (September - December), Silvia Loal, Cristina Penelba (PEJ-L).

**Overview**

Molecular imaging, especially PET, goes beyond the role of tumour detection and has also taken on the role of tumour characterisation.

**Publications**


**Research Highlights**

The main objectives of the Unit are to provide CNIO researches with state-of-the-art molecular imaging equipment and human resources in order to: guarantee the highest quality studies, develop and update protocols and techniques to optimise visualisation of tumours in both preclinical and clinical fields, as well as assess and advise researchers on the best-suited imaging modality for their research projects.

With the Immuno-PET strategy, the high specificity of the antibody is coupled with the high sensitivity of PET imaging to obtain a strong, non-invasive, tool for glioblastoma (GBM) and pancreatic carcinoma diagnosis and follow-up. In 2016, we published the results of our collaboration with the Val-Montesio and Massimino Breast Cancer Groups.

Furthermore, we continued our active participation in the international consortium focused on imaging, ‘M*Vision’ led by the Massachusetts Institute of Technology (MIT).