

Albira Si PET/SPECT/CT imaging system

The [Albira Si](#) is a trimodal imaging system that integrates **Positron Emission Tomography (PET)**, **Single-Photon Emission Computed Tomography (SPECT)**, and **X-ray Computed Tomography (CT)** within one fully x-ray shielded and stand-alone imaging platform. The fully automated animal handling system enables automatic co-registration of images.

Specifications

PET

- 3 ring detector, 24 Modules.
- FOV 80 mm transaxially, 286 mm axial.
- Resolution 0.7mm.

SPECT

- Gamma CsI (Na) crystal camera
- FOV 25mm-120mm.
- Resolution 0.7mm.

CT

- 10 kV-50 kV.
- FOV 70mm transaxially, 300mm axial.
- Resolution 90 μ m.

Applications

PET

- **Metabolism studies** (e.g., with [18 F]FDG)
- **Neuroimaging:** Receptor binding, neurotransmitter activity
- **Cancer research:** Tumor detection, monitoring therapy response



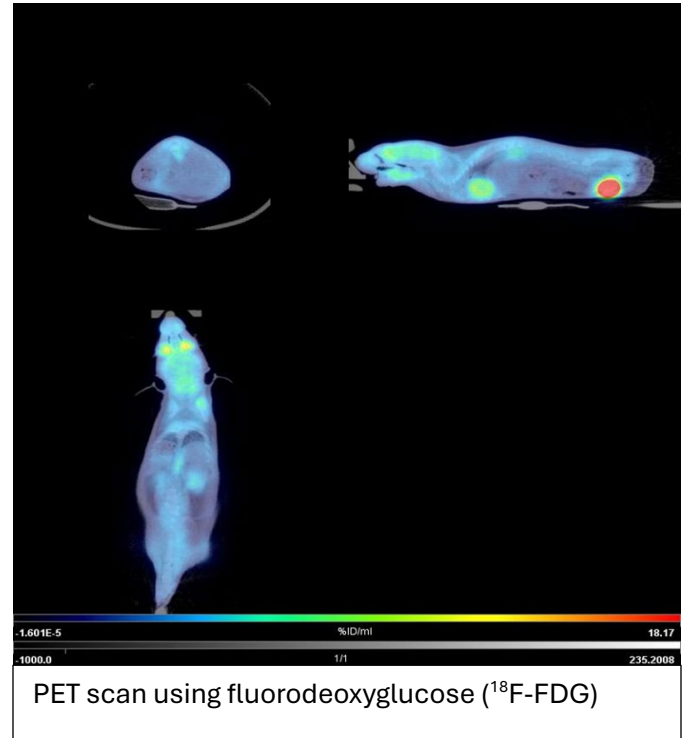
- **ImmunoPET:** Labeling antibodies to track immune responses
- **Drug pharmacokinetics and biodistribution**

CT

- **Anatomical imaging** for localization (often combined with PET/SPECT)
- **Bone imaging:** Osteoporosis, arthritis, bone metastases
- **Lung disease models:** Fibrosis, emphysema, infection

SPECT

- **Cardiac imaging:** Myocardial perfusion
- **Neuroimaging:** Study of dopamine transporters, etc.
- **Bone metabolism and remodeling**



The Albira PET/SPECT/CT system at DLARIC is operated by DLAR staff. If you are interested in using the system, please contact the Imaging Core staff to discuss your study plans.