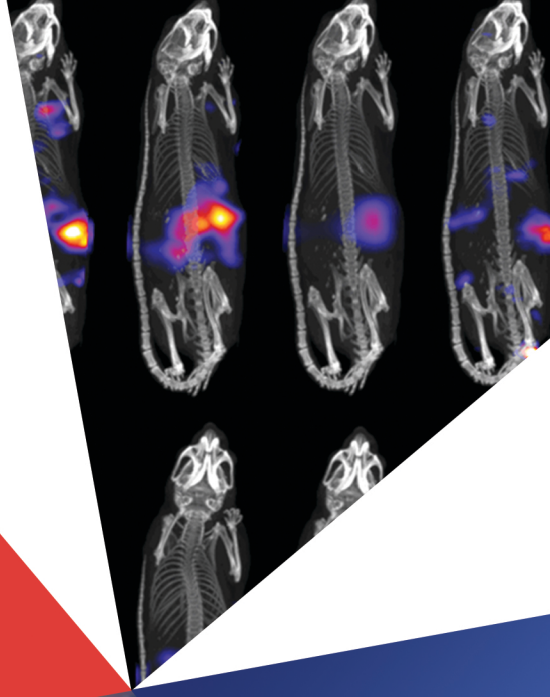
perceptive™ discovery

α-Sight

See Alpha Therapies in Action



Alpha-emitting radiopharmaceuticals are rapidly transforming oncology, but understanding their biodistribution, safety, and efficacy remains a major challenge.

α-Sight enables direct, in vivo imaging of alpha-emitting radionuclides using a high-sensitivity SPECT camera powered by advanced CZT technology. Seamlessly integrated with Perceptive's analysis workflows and VivoQuant, it delivers quantitative, whole-body insights to accelerate radioligand therapy development.

Preclinical Core Capabilities

- Imaging of ^{225}Ac and ^{211}At therapies
- High-sensitivity Alpha-SPECT™ Mini (CZT technology)
- Co-registration with CT for anatomical information
- Integrated gamma counting + tissue validation
- Advanced image analysis via VivoQuant
- Longitudinal imaging in the same animal
- Multi-timepoint biodistribution analysis

Key Applications

- Accelerated compound screening
- Lead candidate validation
- Biodistribution and tumor targeting validation
- Mass dose and PK/PD assessment
- Multi-isotope detection

Why α-Sight

High Sensitivity
Low injected activities of ^{211}At and ^{225}Ac

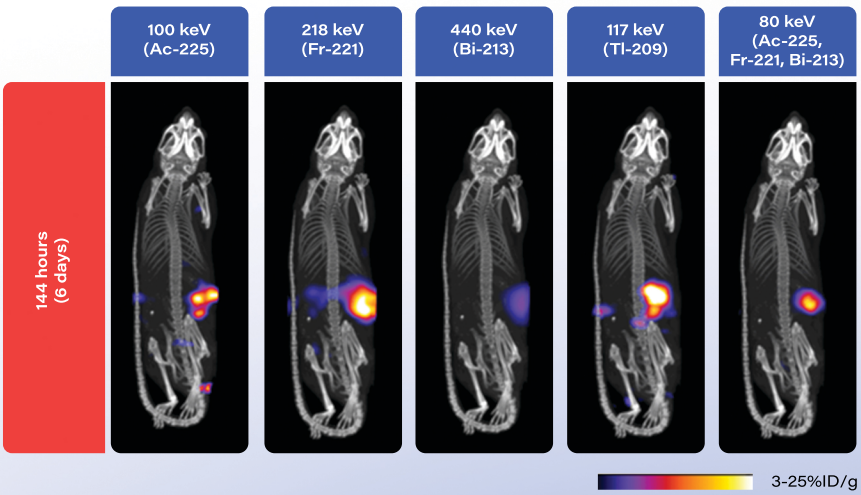
Multi-isotope Detection
Imaging of ^{225}Ac daughter radionuclides

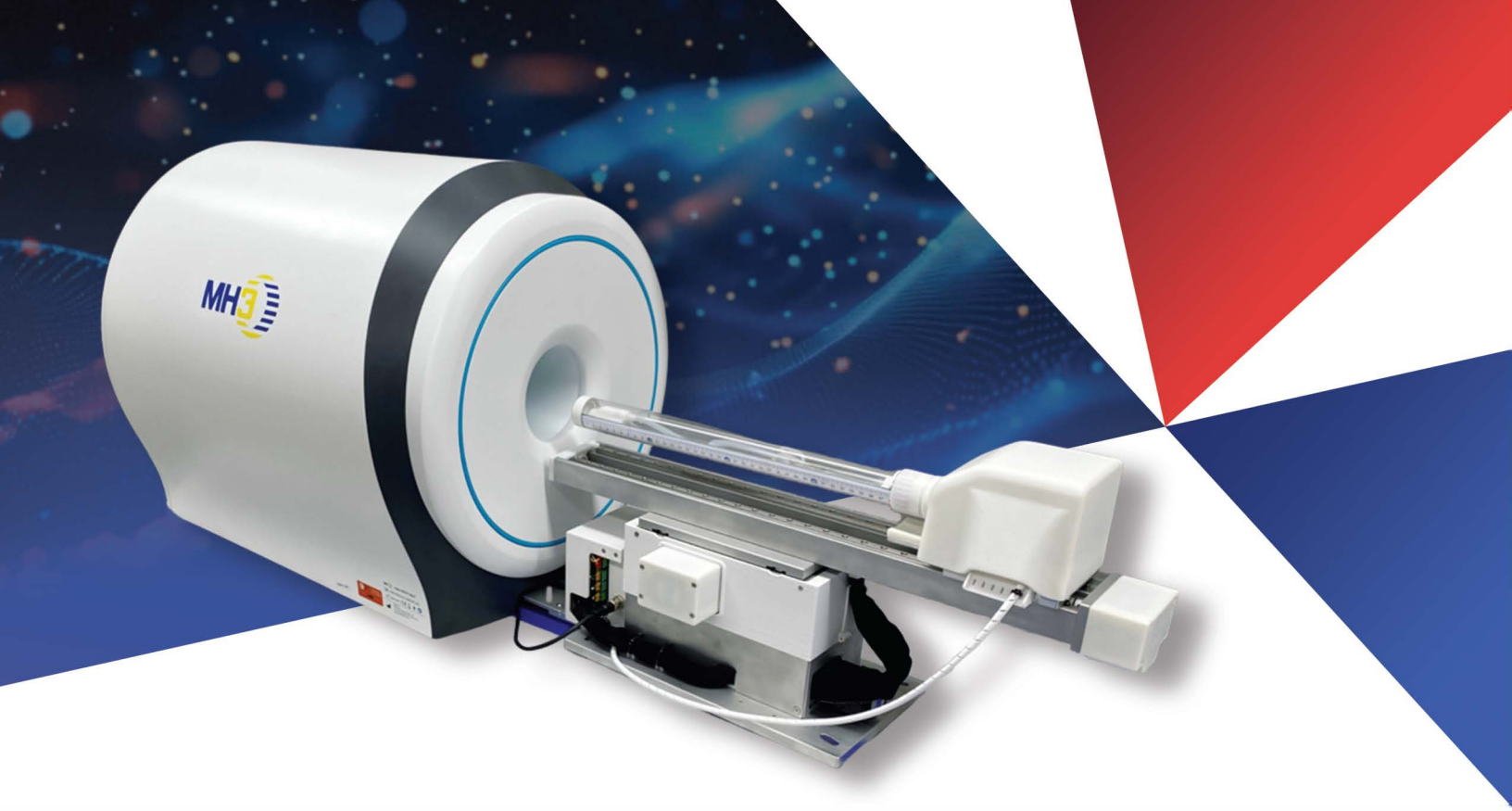
Same-Animal Longitudinal Data
Reduce variability and animal usage

Whole-Body Spatial Insight
Identify off-target risks early

Application Data

Figure 1. Alpha-SPECT™ Mini imaging of a representative mouse injected with **20 kBq** of an ^{225}Ac-labeled antibody. Mice bearing tumors in the lower flank were administered the test article intravenously and imaged at multiple timepoints, up to 6 days post-injection. Tumor retention is observed at 6 days for ^{225}Ac and daughter radionuclides.





Technology Spotlight: Alpha-SPECT™ Mini Imaging Platform

At the core of α-Sight is the Alpha-SPECT™ Mini system, a next-generation preclinical imaging platform purpose-built for alpha-emitting radiopharmaceuticals.

Key Advantages

High Quantification Accuracy

Achieves low quantification error (~1–10%) across multiple energy peaks, enabling reliable biodistribution analysis

CZT-Based Detector Technology

Delivers superior sensitivity and ~2.5% energy resolution at 140 keV for precise isotope discrimination

Multi-Isotope Imaging Capability

Accurately captures complex decay chains (e.g., ^{225}Ac daughters) across multiple energy windows

Dynamic & Longitudinal Imaging

Supports **real-time dynamic scans (minute-level resolution)** and extended longitudinal studies

Reduced Scan Times & Lower Dose Requirements

High sensitivity enables efficient imaging with lower activity levels which is critical for longitudinal imaging with no toxicity

Seamless CT Integration

Universal bed system enables co-registration with CT for anatomical context

What This Means for You:

More accurate data, faster studies, and direct visualization of alpha therapies without compromise.

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