

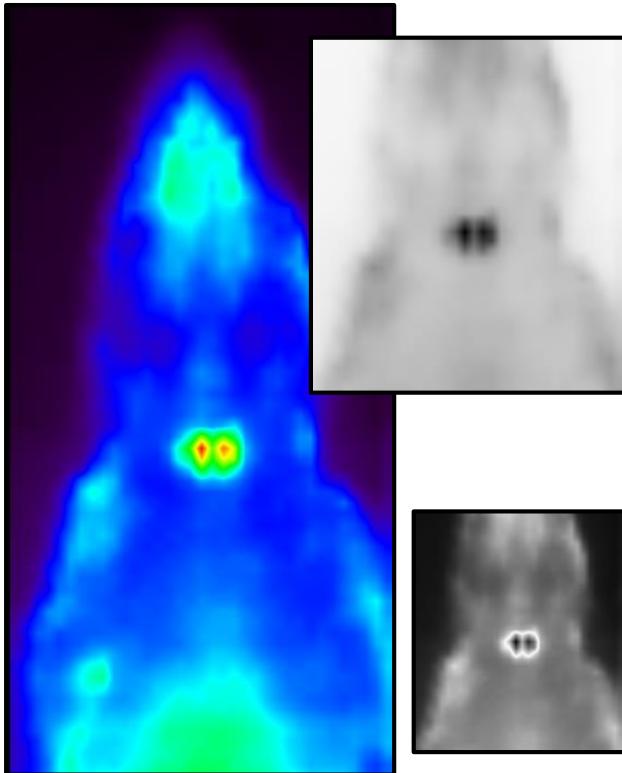


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“The use of small-animal models in basic and preclinical sciences is a major keystone for these kinds of research and development strategies, representing a bridge between discoveries at the molecular level and clinical implementation in diagnostics and/or therapeutics”. The Persian Gulf nuclear medicine research center has been working on preclinical research using small-animal radionuclide imaging for 4 years.



Healthy rat study. Thyroid Scan

Thyroid Scan

Thyroid scintigraphy in rats and mice with ^{99m}Tc was attempted to examine whether this modality might be used to describe the possibilities of its application in examining experimentally produced thyroid diseases.

- Thyroid images with ^{99m}Tc were obtained 15 minutes after injection.
- The radionuclide scan displayed salivary gland images, demonstrated sufficiently clear images in size and shape.
- The results showed that thyroid scintigraphy in small animals is applicable in examining experimentally produced thyroid diseases.

Radionuclide: ^{99m}Tc

Rat's Thyroid Scan

HiReSPECT; Small-animal SPECT

Radionuclide scan Imaging was conducted using HiReSPECT, a small-animal SPECT.

- The imaging system consisted of two gamma cameras.
- The image spatial resolutions and the planar spatial resolution of the system at the head surface is 1.2–1.6 mm and 1.7 mm, respectively.



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