

## Scintigraphy and PET in small animals: what are the indications?

K Peremans, DVM, PhD, DipECVDI  
Faculty of Veterinary Medicine, Ughent, Belgium

### Keynote message

Both Positron Emission Tomography (PET) and Single Photon Emission Computed Tomography (SPECT, scintigraphy) are based on the use of radioactive compounds that, after administration, will distribute in the body and will accumulate in a variety of organs/tumours depending on the tracer they are bound to. In this regard, organ function can be visualized and insight in endocrine, metabolic and molecular processes of the body, can be provided. PET has superior spatial resolution compared to SPECT but is not yet easily accessible for veterinary use. Classically scintigraphy has been used in veterinary medicine especially for thyroid disease and skeletal pathologies. However, several other interesting applications became available for a wider range of pathologies. In recent years, PET has begun to play an important role in the management of human cancer patients, especially to evaluate therapy outcome and monitor disease progression. An additional advantage is the possibility to label tracers with both diagnostic (imaging) and therapeutic (radionuclide therapy) radionuclides, allowing diagnostic screening before therapeutic use of the same tracer labelled with a radiotoxic compound. In this session I will expound on common and less common indications where both modalities play or may play a role in the future in veterinary medicine.

### Key references

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