

## **Semi-conductors detectors and other novelties for nuclear cardiology**

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Nuclear cardiology is rapidly changing for both SPECT and PET techniques and this is firstly in the field of the semiconductor SPECT technology. Indeed, high-count semiconductor SPECT devices, which are dedicated to cardiac imaging and do not use conventional collimation, are now commercially available allowing:

- (i) substantial reductions in both injected activity and SPECT acquisition time and
- (ii) a much more precise dual  $^{201}\text{Tl}/^{99\text{m}}\text{Tc}$  recording.

In addition, myocardial SPECT images may now be routinely analyzed in combination with images from coronary CT-angiography thanks to fusion software and hybrid SPECT/CT systems.

Finally, the last-generation PET systems have been markedly enhanced and new tracers are under development, especially for perfusion investigations but also for the molecular imaging of apoptosis and angiogenesis.