Cancer detective

Deakin University researchers have developed an automated system to improve the accuracy in the interpretation of CT (computed tomography) and MRI (magnetic resonance imaging) scans, which are widely used to detect lung disease including early stages of lung cancer. "Currently, expert radiologists need to view many images per patient to try and identify nodules that may be cancerous. This large amount of data increases the complexity of inspection and interpretation," says Deakin researcher Dr Abbas Kouzani, adding that automated approaches can improve the precision of lung nodule detection and serve as a preliminary interpreter to assist radiologists. The system developed by Dr Kouzani and Alycia Lee can automatically identify lung nodules of varying sizes and shapes in CT images and could improve the accuracy of cancer detection. The system has also proved to be more accurate than alternative automated systems currently available. "Our nodule detection rate is higher than that of the existing systems, and at the same time, our false detection rate is lower than that of those systems," says Dr Kouzani.