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Successful pilot trial indicates airways applications for Optiscan endo-microscopes

- US based "first time in human" study successfully completed
- Significant new market for Optiscan endo-microscopes confirmed

Melbourne: Optiscan has collaborated with leading respiratory specialists at the University of Pennsylvania (Philadelphia, PA, USA) to successfully complete a "first time in human" confocal bronchoscopy trial.

Principal Investigator, Dr. Reynold A. Panettieri, Jr., Director of the Airways Biology Initiative, and his team, Drs Mike Sims and Ali Musani, found that endo-microscope imaging of human airways shows significant potential for clinical applications, and further investigations should be pursued.

There is a compelling need for non-invasive microscopy during bronchoscopy procedures, as biopsy in the airway is hazardous and is associated with serious complications (for example bleeding can lead to significant loss of lung function).

"This was a very exciting first human study. The imaging obtained was most informative and suggests that a safer, biopsy-free bronchoscopy procedure could be enabled by our unique endomicroscope technology" said Optiscan CEO Matthew Barnett. "These excellent results warrant ongoing device development and larger clinical studies."

The pilot clinical study utilised a prototype bronchoscope equipped with an Optiscan miniaturised confocal scanner in the tip to examine surface and subsurface cellular structures of the lining of human airways. This type of microscopic imaging of the human airway has not previously been achieved.

The 5 patients in the study included lung transplant recipients, sufferers of COPD (chronic obstructive pulmonary disease) and one patient with lung cancer. The endo-microscope images showed key microscopic features expected for the tissue and diseases that were examined. Imaging was also consistent with results of previously completed pre-clinical studies.

Background

Optiscan is a global leader in microscopic imaging technologies for medical markets. Optiscan's unique and patented technologies enable high-powered microscopes to be miniaturised and used inside the body. The technology enables microscopic imaging of up to 1000 times magnification to be achieved. Doctors can use the technology to instantly see cellular level details of tissue without the requirement to surgically remove tissue (biopsy).

Pentax has been licensed by Optiscan to use its patented miniaturised microscope technology in the field of flexible endo-microscopes.

Optiscan has also announced a collaboration with the Carl Zeiss Group in Germany for the use of its patented miniaturised microscope technology in rigid endoscopes in key Zeiss markets.

Further information:

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