



2 June 2008

## **Endomicroscopy takes Centre Stage at DDW 2008**

**San Diego, California, USA (May 17<sup>th</sup> -22<sup>nd</sup>, 2008):** Optiscan's technology was showcased in 15 sessions at this year's annual Digestive Diseases Week conference, the largest international meeting for gastroenterologists. New results presented at the prestigious conference show the learning curve for the technology is shorter than many new users anticipated.

Data reported from around the world, including the USA, very consistently showed the benefits and relative ease of learning endomicroscopy. The flavour of this year's reports emphasised:

- high diagnostic yield,
- improved efficiency of endoscopic procedures,
- ease of learning compared to other techniques,
- the ability to proceed directly to therapy based on the use of the technology within a single procedure.

Optiscan's endomicroscopy products appeared in no less than 15 sessions of the meeting, as well as enjoying positive reviews and feature positions in Plenary lectures, which are the key sessions reserved for reviewing the highlights and major developments of the year in the field of gastroenterology. By comparison, Optiscan's competitor technologies featured in just 4 sessions.

In addition, "hands-on" training in endomicroscopy was included in an ASGE (American Society of Gastrointestinal Endoscopy) endorsed training course. There were also satellite events amongst more than 100 international users of endomicroscopy.

As global adoption of the technique continues to expand, the learning curve associated with endomicroscopy was discussed in detail. As well as the formal learning curve study reported by Dr Kerry Dunbar of Johns Hopkins Hospital, the Italian study by Trovato et al, reported comparable data to other studies from around the world. Remarkably, they initiated the study after just 20 procedures of training and familiarisation. This demonstrated just how reliable the technique is and how easily it can be adopted into clinical practice.

"We are very encouraged to see so many new groups around the world achieving great results with our technology so quickly" said Optiscan's CEO, Vicki Tutungi, "It is clearly viable for gastroenterologists everywhere to adopt the technology based on today's understanding of the technique".

There were several notable presentations confirming the establishment of endomicroscopy as a new modality in gastrointestinal endoscopy:

- An international safety review of over 2,100 endomicroscopy procedures performed in the USA, UK and Germany. With no serious adverse events the technique was deemed at least as safe as conventional endoscopy.
- Important learning curve data from Johns Hopkins Hospital (Baltimore, USA) demonstrating that endomicroscopy offered clinical benefit within the first 30 cases and could be mastered after about 100 cases – shorter and easier to learn than other advanced endoscopy techniques.



- A report from a randomised crossover trial at Johns Hopkins Hospital comparing endomicroscopy to standard random biopsies for detecting cancer and precancerous dysplasia in Barrett's oesophagus. Endomicroscopy doubled the efficiency of biopsy collection where disease was present and eliminated the need for biopsy in 66.8% of patients, without missing any disease detected by standard biopsy protocols. Investigators also reported that this supported direct progression to removal of diseased tissue during the same endoscopy.
- Trovato et al (Milan, Italy) also reported results in a Barrett's esophagus study showing high diagnostic efficacy after only 20 cases training before initiation of the study. This strongly reinforced the reproducibility of endomicroscopy and importantly, the short time from adoption to achieving clinical benefit.
- A study of using fluorescently labelled antibodies in combination with endomicroscopy to image specific disease marker molecules in intact tissue. The work was considered of such significance to be elevated to a plenary lecture forum within the meeting.
- A study reporting the ability to use endomicroscopy to study the process of cell death in the living liver. This novel work offered insights into cell turnover in the liver never before witnessed in the intact liver.
- A surgical study showing endomicroscopic differentiation of normal and cancerous tissue in the pancreas and bile duct of patients undergoing pancreatic cancer resection surgery (the "Whipple" procedure).
- A highly novel study showing direct effects of bacteria on the rate and pattern of cell turnover in the small bowel of patients during endoscopy. The study of this phenomenon cannot be achieved in biopsies and has been documented for the first time using endomicroscopy.

There was much discussion at the meeting about the impact on procedures of having endomicroscopy during an endoscopy procedure. Dr Mimi Canto of Johns Hopkins Hospital (Baltimore, USA) commented that in their patients with Barrett's oesophagus, endomicroscopy was used to find dysplasia, and proceed directly to resect it during the same endoscopy. Dr Canto said "if we see an obvious lesion in the colon, such as a polyp, we would cut it out. Endomicroscopy tells us that there is dysplasia where there is no obvious lesion. In these cases, we should use this information and resect it".

## 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).

Further information:

Vicki Tutungi, CEO  
Tel (613) 9538 3347  
vickit@optiscan.com

Bruce Andrew, CFO  
Tel (613) 9538 3398  
brucea@optiscan.com