

Contact:
Fern Lazar
Lazar Partners
W: 212-867-1762
Email: flazar@lazarpartners.com

Three Studies Using Mauna Kea Technologies' Cellvizio® GI Featured in Major Medical Journals

- Cellvizio's Capabilities Highlighted in November Issue of ***Clinical Gastroenterology and Hepatology*** Cover Page, Featured Article, Original Article and Editorial -
- Study Published in ***Gastrointestinal Endoscopy*** Demonstrates Video Mosaicing of Microscopic Images obtained with Cellvizio -

Paris, France – November 19, 2007 -- Mauna Kea Technologies (MKT), a leader in the field of in vivo cellular imaging for biomedical research and clinical practice announced that the Company's Cellvizio® GI technology is featured in the November issue of *Clinical Gastroenterology and Hepatology*, including two papers and an editorial by Kenneth K. Wang M.D. and Dr. Michael Camilleri M.D. Cellvizio® GI is also the subject of a study published in this month's issue of *Gastrointestinal Endoscopy*.

Clinical Gastroenterology and Hepatology Editorial

Kenneth K. Wang M.D. and Michael Camilleri M.D. published an editorial on the two studies using Cellvizio® GI in this month's issue of *Clinical Gastroenterology and Hepatology*. The authors conclude, "As the wave of diagnostic endoscopy wanes, the gastroenterologist has the opportunity to serve all the needs of the patient presenting with premalignant or malignant localized mucosal diseases. This is the dawning of the age of the endoluminal gastroenterologic surgeon."¹

Meining et al Study in Clinical Gastroenterology and Hepatology

Data from a clinical study led by PD. Dr. Alexander Meining (Klinikum rechts der Isar, Munich, Germany) using the Cellvizio® GI imaging system are the subject of the featured article of *Clinical Gastroenterology and Hepatology* and appear on its cover. In the study, patients with known or suspected gastrointestinal neoplasia underwent examination with the Cellvizio® GI imaging system followed by biopsy or tissue excision of the examined tissue. A total of 119 video sequences were obtained from both normal and neoplastic areas and examined by a pathologist and a gastroenterologist. Imaging findings were compared with biopsy results and used to assess the accuracy, sensitivity and specificity of the Cellvizio® GI system.

¹ Kenneth K. Wang, M.D. and Michael Camilleri, M.D., Endoscopic Confocal Microscopy: Imaging to Facilitate the Dawn of Endoluminal Surgery, *Clinical Gastroenterology and Hepatology* 2007;5:1259-1260.

Results evidenced strong agreement between non-invasive Cellvizio® findings and biopsy findings. When a pathologist reviewed the video sequences, the accuracy, sensitivity and specificity for neoplasia differentiation per biopsy were 92.6%, 92.3% and 92.8%, respectively. When a gastroenterologist reviewed the video sequences, results per biopsy were similar (92.4%, 93.1% and 92.1%).

The authors conclude that the Cellvizio® GI imaging system has the potential to differentiate accurately between normal and neoplastic areas of the gastrointestinal tract. Additional clinical studies designed to validate these findings in patients with Barrett's esophagus, a condition that can lead to esophageal adenocarcinoma, are ongoing.

Wang et al Study in *Clinical Gastroenterology and Hepatology*

A second study using Cellvizio® GI published in the November issue of *Clinical Gastroenterology and Hepatology* was led by Thomas D. Wang M.D. (VA Palo Alto and Stanford University, CA, USA). The aim of this study was to show the use of functional optical imaging of viable mucosa for quantitative evaluation of colonic neoplasia in real time. In the study, fluorescein (5 mg/ml) was administered topically in 54 human subjects undergoing screening colonoscopy. Fluorescence images were collected with 488-nm excitation at 12 frames/s with the Cellvizio® GI system. Fluorescein dynamics and its impact on image acquisition and interpretation was quantified.

Normal mucosa showed circular crypts with uniform size, hyperplasia revealed proliferative glands with serrated lumens, and adenomas displayed distorted elongated glands. After application of topical fluorescein, high sensitivity, specificity, and accuracy was achieved using a discriminant function to evaluate the contrast ratio to distinguish normal from lesional mucosa (91%, 87%, and 89%, respectively; $P < .001$), hyperplasia from adenoma (97%, 96%, and 96%, respectively; $P < .001$), and tubular from villous adenoma (100%, 92%, and 93%, respectively; $P < .001$).

The study's authors conclude that confocal imaging using Cellvizio® GI can be performed in vivo to assess the functional behavior of tissue in real time for providing pathologic interpretation, representing a new method for histologic evaluation.

Becker et al Study in *Gastrointestinal Endoscopy*

Cellvizio® GI was also highlighted in the November issue of *Gastrointestinal Endoscopy*. A seven patient study was conducted by Dr. Becker, PD. Dr. Meining and colleagues (Klinikum rechts der Isar, Munich, Germany) to evaluate the feasibility of performing real-time microscopic imaging in conjunction with a video mosaicing algorithm. Cell-to-cell borders, single cell structures and mucosal inflammation were readily detectable. By the use of the mosaicing algorithm, the image area could be increased 2- to 4-fold, and image definition could be further enhanced to allow finer detail visualization.

The study's authors conclude that Cellvizio® GI high-resolution miniprobe-based confocal fluorescence microscopy in conjunction with video mosaicing has the potential to provide images similar to standard histopathologic studies. Dynamic images with a smaller field of view can be combined to reconstruct still images of high resolution covering a fairly large area.

“These data are consistent with those from the trials that supported registration of the Cellvizio® GI imaging system and demonstrate the utility of this non-invasive imaging system in routine clinical practice,” said Sacha Loiseau, Ph.D., President and CEO of Mauna Kea Technologies. “We are very pleased to see the promise of our Cellvizio® platform being realized in the care of patients. Additional data from several ongoing clinical studies will provide insight into the role of the approach in optimizing patient care.”

About Mauna Kea Technologies:

Mauna Kea Technologies engages in the conception, development, fabrication and commercialization of novel high-speed minimally invasive imaging systems for in-vivo and in-situ microscopy. MKT’s unique fiber-based microscopy platform, Cellvizio®, is the world’s smallest microscope with multifarious applications in research and medicine. MKT’s products, developed at the crossroads of optics, mathematics, image processing, biology and medicine, currently address the markets of digestive endoscopy, bronchoscopy and small animal imaging. For more information, visit www.maunakeatech.com.