## BREAST CANCER FEATURES EFFECTIVELY ASSESSED IN REAL TIME BY SURGEONS AND PATHOLOGISTS USING CELLVIZIO

 Two studies support use of endomicroscopy to identify cancerous and healthy tissue in real time during breast conserving surgery

Paris, September 10, 2015 – Mauna Kea Technologies (Euronext: MKEA, FR0010609263, PEA-SME eligible), inventor of Cellvizio®, the multidisciplinary confocal laser endomicroscopy platform, today announced the publication of clinical study results involving the use of CLE with Cellvizio in the peer reviewed journal Breast Cancer Research and Treatment. In the study, a research team from Imperial College London investigated the ability of probe-based confocal laser endomicroscopy (pCLE) to image the morphology of neoplastic and non-neoplastic breast tissues.

Current technologies to assess tumor excision during breast conserving surgery are unable to provide real-time direct cytopathological imaging assessment of the internal cavity walls within the breast. In addition to studying the ability of pCLE to image the morphology of neoplastic and non-neoplastic breast tissues, the authors also assessed the ability to differentiate these images among both pathologists and surgeons. In the study, 71 freshly excised tumor samples and adjacent non-diseased sections from 50 patients were imaged using pCLE. All discernible pCLE features were cross-examined with conventional histopathology. Following pattern recognition training, a group of nine pathologists and eight surgeons with no prior pCLE experience interpreted 850 pCLE images independently. A total of 350 pCLE image mosaics were also analyzed. The mean accuracy of pCLE image interpretation among pathologists and surgeons was 94% and 92%, respectively.

"In this study, the morphological features of neoplastic and non-neoplastic breast tissues were readily visualized and distinguished with a very high degree of accuracy by both histopathologists and surgeons," said Prof Guang-Zhong Yang, Director of the Hamlyn Centre, Imperial College, London. "These findings provide strong additional support for the potential use of pCLE to provide a real time, accurate diagnosis of breast cancer during breast conservation surgery."

Results from an earlier study of the use of pCLE as a real-time diagnosis of breast cancer were published in April 2015 in the peer-reviewed journal BMC Cancer. In this study, use of pCLE revealed unique morphological patterns in normal breast tissue, benign lesions and breast cancers. Histopathology confirmed the presence of a benign lesion in six patients (46%) while breast cancer was accurately diagnosed in seven women (54%). pCLE was able to characterize several types of benign and malignant tissue. Approximately 700,000 lumpectomies are performed every year globally.

"The results of these recent studies on the use of Cellvizio for the first time in breast cancer add to the rapidly expanding body of literature confirming the potential opportunities to use our unique technology perioperatively in order to rapidly and accurately identify the presence and the extent of cancer in real time, potentially leading to more successful interventions and more targeted and appropriate treatment for millions of patients each year," said Sacha Loiseau, founder and CEO of Mauna Kea Technologies.

Next press release: Q3 2015 sales on October 15, 2015 (after close of trading)



## **About Mauna Kea Technologies**

Mauna Kea Technologies is a global medical device company focused on protecting patients' lives while enabling physicians and surgeons to make better decisions thanks to direct visualization at the cellular level. The Company's flagship product, Cellvizio, has received clearance to sell a wide range of applications in more than 40 countries, including the United States, Europe, Japan, China, Canada, Brazil and Mexico. For more information on Mauna Kea Technologies, visit www.maunakeatech.com

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