Briteseed

Briteseed's SafeSnips is an innovative surgical device system that makes operations safer by alerting the surgeon before an unsafe cut is made.

Team

Briteseed has core competencies in all aspects of device development. This includes professionals with backgrounds in biomaterials, biomedical engineering, single processing and electrical engineering. The core team also comprises a bioengineering with expertise in biophontonics, the vice chair of surgery and chief of gastrointestinal and oncologic surgery and a medical sciences expert.

Problem

A surgeon's lack of sensation during minimally invasive surgery, including lapraroscopic and robotic surgery, leads to difficultly in identifying deferent tissue types, especially blood vessels. The rate of bleeding in laparoscopic surgery is as high as 3.3%, and when a vessel is injured, the mortality rate approaches 18%. The added cost of care is approximately $210,000/ patient.

Technology Solution

The platform technology employs several channels of light, including near-infared light, to safely and non-invasivly identify blood vessels hidden in tissue real time. The current prototype is capable of identifying vessel presence and vessel diameter to within 1mm. The technology also provides vessel matrix such as orientation, blood perfusion, and oxygen saturation.

Business Details

Briteseed's platform technology integrates with exiting surgical tools to detect blood vessels in real time during surgery to decrease unintended interoperative bleeding. Future Briteseed technologies will spread across the minimally invasive market through integration into other laparoscopic and robotic devices, a global market anticipated to reach $90.4B by 2016.

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