NovaUCD

Technology Licensing Opportunity

Endopierce: Endoscopic Injection in GI Tract

- Safe injection into the submucosal space during endoscopic procedures

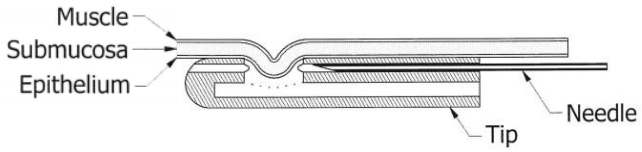

Figure 1. Endopierce: The needle is moved adjacent to the tissue and tissue is sucked into the needle using negative pressure

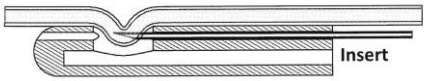

Figure 2. Endopierce: The tissue is pierced by advancing the needle

Opportunity:

Endopierce, developed by University College Dublin (UCD) researchers, is a needle with side-ports and a housing at the tip which allows tissue to be suctioned into it in such a way that the needle will always inject material (saline, tattoo ink etc) into the submucosal space.

The technology is intended to prevent accidental delivery of material out of the lumen of the gastrointestinal (GI) tract. The technology can be used by a single operator, which allows the endoscopist to control insertion of the needle and delivery of the material.

Applications:

- Separation of the mucosa from the submucosa and the muscularis propria in the esophagus and stomach in advance of endoscopic mucosal resection and endoscopic submucosal dissection.
- Delivery of peritumoral tattooing ink (such as India Ink or Indocyanine Green etc) for endoscopic identification of lesions to be removed at surgery.
- Injection of saline in advance of removal of polyps.
- Accurate delivery of advanced imaging agents or radioactive agents to submucosal space.

Key Features/Advantages:

- Safety: Prevent unwanted leakage or perforation.
- Control: High level of control on depth of insertion.
- Repeatability: Injection can be performed at the same depth repeatedly.
- Ease of use: Operated by the endoscopist without the need of the assistance of another operator.

Value Proposition:

Safe injection of material into the submucosal space:

- Controlled delivery and prevent unwanted leakage or perforation
- Ability to operate single handed.

Market:

GI surgery: Endoscopic injection of saline and dyes

- Endoscopic mucosal resection
- Endoscopic mucosal dissection
- Polypectomies
- Endoscopic tattooing.

Lead Inventors:

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