



Technology Available for Licensing

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Non-Confidential Description

PSU Invention Disclosure No. 4196

“Compositions and Methods for Diagnosing Barrett’s Esophagus Stages”

Keywords:

Barrett’s esophagus (BE), esophageal adenocarcinoma (EAC), dysplasia, biomarkers, diagnostic

Inventors:

Douglas Stairs and Julie Masse

Background:

Barrett's esophagus (BE) is a precancerous lesion and can progress through low (LGD) and high grade (HGD) dysplasia resulting in esophageal adenocarcinoma (EAC). It can be difficult to obtain an accurate diagnosis of BE with dysplasia as either low or high grade. Since HGD carries a greatly increased risk of developing EAC, many gastroenterologists will aggressively treat it, while LGD patients remain on active surveillance. As such, a misdiagnosis can have dramatic impact on a BE patient's morbidity and mortality. Despite efforts to identify new diagnostic markers that could accurately stage the high risk patients, no useful markers are used clinically and the diagnosis of BE is still based on histopathology of the biopsy.

Invention Description:

The present invention permits the discrimination between the early and late stages of Barret’s esophagus (a serious complication of gastroesophageal disease (GERD)) by testing a biological sample for expression of specific proteins, comparing the amount of those proteins to reference values. This invention also includes diagnostic kits for making these protein determinations.

Advantages/Applications:

This invention allows for accurate non-invasive testing, and thereby helps to avoid misdiagnosis which may have dramatic impact on a BE patient's morbidity and mortality.

Commercial Potential:

This invention may be of particular interest to producers of diagnostic kits, suppliers to pathologists, and gastroenterologists.

Status of the Invention:

A PCT application was filed 3/13/15

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