Novel Diagnostic for Inflammatory Bowel Disease

**OCR Number:** OCR 5727

**Description:**

- Current diagnostic tests for inflammatory bowel disease (IBD) are based on the presence of intestinal inflammation - a very late stage characteristic of the disease.
- Perturbations in the NLRP6 inflammasome pathway can predispose individuals to, or initiate, IBD due to dysbiosis.
- OCR5727 is a novel diagnostic that focuses on early detection of dysbiosis that causes autoinflammation.
- This technology is a unique PCR-based fecal diagnostic test that can:
  - predict the early onset of IBD
  - be used to predict the onset of a relapse episode of IBD.

Deficiencies in NLRP6 pathway in mouse colonic epithelial cells results in reduced IL-18 levels and altered microbiota characterized by increased representation of the bacterial phyla Prevotellaceae and TM7.

**Stage of Development:** Proof of concept small animal studies complete.

**Published/Issued Patents:**
- [U.S. Pub. App. No. 20140377278](https://www.google.com/)

**Publications:**
Licensing Contact: Hong Peng
hong.peng@yale.edu