Unique Selling Point:
IBDetect™ combines qPCR and machine learning technology to diagnose Inflammatory bowel disease (IBD) patients. It is ideal for the construction of a ready-to-use diagnostic kit.

- **Cheap and easy to implement** – qPCR equipment is already widely available at hospitals
- **Quick to use** – analysis can be completed within the same time frame as histological examination
- **Can increase the quality of IBD treatment** without burdening the patient through increased accuracy in diagnosis

Objective and background:
IBD is a chronic disorder of the human gut, affecting 1 in 250 Europeans. The main types of IBD, ulcerative colitis (UC) and Crohn’s disease (CD), require different pharmaceutical and/or surgical treatments.

Diagnosis is based on visual examination of the gut and histological examination of gut biopsies. Diagnosis is difficult: about 15% of patients are not classifiable, and the initial diagnosis is often wrong, which leads to additional costs for the healthcare provider and may harm the patient.

Molecular methods to increase the certainty of diagnosis, like IBDetect™, are needed.

Technology Description:
IBDetect™ uses quantitative polymerase chain reaction (qPCR) to determine the relative expression of 35 specific RNA markers in biopsies from the large intestine. The qPCR data is analyzed by a machine learning algorithm which can predict the diagnosis – UC, CD or non-IBD – with an overall accuracy of ≥85% in independent cohorts.

Development Phase/Current state:
IBDetect™ has been tested on a total of 269 human subjects (3 cohorts). The overall accuracy was ≥85% when training the method one one cohort and evaluating it on another independent cohort (Boyd et al, Nature Communications 2018).

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Technology Seeking: Partner for clinical testing and development into a commercial diagnostic kit

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