

METHOD FOR THE DIAGNOSIS OF ULCERATIVE COLITIS



Business area

Diagnostics

Market sector

Diagnosis of ulcerative colitis

Medical Indication

Use of an oligonucleotide probe

RESEARCH GOAL

Inflammatory bowel disease (IBD) represents a group of chronic bowel disorders with periods of increased and decreased inflammatory activity. Due to limitations in the knowledge of the etiopathogenesis of the disease, as well as in the diagnosis of the different types of IBD, new alternatives for the diagnosis of IBD disorders are required as to allow the right treatment to be provided to the patients.

PROBLEM TO SOLVE

Despite having been extensively studied, the etiology of these diseases is still unknown. Genetic as well as immunological and environmental factors have been implicated and are interrelated. The contribution of the intestinal microbiota in the pathogenesis of IBD is nowadays presented as unquestionable, finding different mechanisms involved in the development of inflammation and in its maintenance. Colonization by commensal microorganisms along the gastrointestinal tract begins prenatally, allowing the development and regulation of the immune system, leading to a state of homeostasis between the commensal microbiota and the host. In IBD, an imbalance between the intestinal microbiota and the mucosal immune system has been shown to trigger a chronic inflammatory response.

INNOVATION

The inventors have discovered that **a particular Bacteroidetes-associated genotype is present in the gut microbiota of subjects suffering from ulcerative colitis but not in healthy subjects**, thus allowing to use the detection of said genotype as an early diagnostic tool. **The inventors have also developed a probe for the detection of said genotype.**

MARKET OPPORTUNITY

The global inflammatory bowel disease treatment market size was valued at USD 23.90 billion in 2021. **The market is projected to grow from USD 25.18 billion in 2021 to USD 37.00 billion by 2029**, exhibiting a CAGR of 5.7% during the forecast period (Inflammatory Bowel Disease, 2022). In the other hand, according Dr. William Faubion Jr., a Mayo Clinic gastroenterologist, the most recent estimates of prevalence would be that, depending on where you live and what region in the world you live, **as many as 1 in 250, to 1 in 300 people may be affected with inflammatory bowel disease** (Sparks, 2021).

RESEARCH TEAM

The research team is part of the CHUS Digestive System Service, an outstanding unit in translational research, which has also been awarded as the **best Digestive System Service in Spain in the Best-in-Class awards** for three consecutive years, being finalist in all the other editions of these awards. Its members have been working and researching inflammatory bowel disease (IBD) for years. The research team also included members of the **Department of Microbiology and Parasitology of USC**, who also belongs to the IDIS group E046 with extensive experience in research on the diagnosis of human and animal microbes.

DEVELOPMENT STAGE



INTELLECTUAL PROPERTY

European patent application **EP22382873**
(22nd September of 2022)

Available for: *Licensing, co-development*

Inflammatory Bowel Disease Treatment Market Size, Share & COVID-19 Impact Analysis, By Disease Indication (Ulcerative Colitis and Crohn's Disease), By Route of Administration (Oral and Injectables), By Drug Class (IL Inhibitors, TNF Inhibitors, Anti-integrin, JAK Inhibitors, Corticosteroids, ASA Drugs, and Others), By Distribution Channel (Hospital Pharmacy and Retail Pharmacy & Other), and Regional Forecast, 2022-2029. (2022). Fortune Business Insights. <https://www.fortunebusinessinsights.com/inflammatory-bowel-disease-treatment-market-106704>
Sparks, D. (2021, March 16). Mayo Clinic Q&A podcast: The increasing prevalence of inflammatory bowel disease. Mayo Clinic News Network. <https://newsnetwork.mayoclinic.org/discussion/mayo-clinic-qa-podcast-the-increasing-prevalence-of-inflammatory-bowel-disease/>