



# Licensing Opportunity

[www.tt.research.ucf.edu](http://www.tt.research.ucf.edu)

## Protocol for Detection of Mycobacterium Paratuberculosis in Crohn's Disease

### Background

Inflammatory bowel diseases, such as Crohn's disease or ulcerative colitis, cause inflammation of the gastrointestinal tract, most commonly the small intestine. The resulting inflammation causes abdominal pain, difficulty digesting food, and rectal bleeding along with other symptoms such as fever and weight loss. The current theory is that species of Mycobacterium, specifically Mycobacterium paratuberculosis, is the main cause of Crohn's disease. Clinically diagnosing Crohn's disease or ulcerative colitis is an expensive, time consuming process usually done by performing a colonoscopy, endoscopy, sigmoidoscopy or radiological technique sometimes requiring a biopsy. It is estimated that at least one million Americans have Inflammatory Bowel Disease (IBD) of which one half suffer from Crohn's disease and the other half from ulcerative colitis. Because of the lack of health care and high diagnostic costs, the actual number may be higher. Therefore, a less invasive, less expensive diagnostic test to accurately identify those with bowel disease due to a Mycobacterium paratuberculosis infection is highly desirable. Once positive tests are obtained using this method, patients can be treated with common anti-MAP compounds, such as clarithromycin, rifabutin, and clofazimine.

### Invention

The present invention relates to detection of the bacterium Mycobacterium paratuberculosis (MAP) through a unique method using peripheral blood samples and in vitro cell culture to obtain sufficient growth of MAP for PCR analysis and MAP identification.

### Application

The proposed method is a potential diagnostic test that would be used in a clinical setting to definitively identify patients with bowel disease due to Mycobacterium paratuberculosis (MAP), allowing for effective treatment with anti-MAP compounds.

### Advantages

Provides an efficient, less invasive, and less expensive method to diagnose patients with bowel disease caused by Mycobacterium paratuberculosis (MAP).

### Lead Inventor

Saleh Naser, Ph.D.

### Selected References

Naser SA, Ghobrial G, Romero C, Valentine JF. Culture of Mycobacterium avium subspecies paratuberculosis from the blood of patients with Crohn's disease. *Lancet* 2004; 364(9439): 1039-44.

### Contact

Attn: Svetlana Shtrom, Ph.D., MBA  
University of Central Florida  
Office of Research and Commercialization  
12201 Research Parkway, Suite 501  
Orlando, FL 32826-3246  
Phone: 407.823.5150  
Fax: 407.823.3299  
[sshtrom@mail.ucf.edu](mailto:sshtrom@mail.ucf.edu)  
UCF ID # 6763

