



## **TECHNOLOGY**

# Manometry Monitoring Device for Use in Virtual Colonoscopy (VC) Examinations

## **OVERVIEW**

Virtual colonoscopy (VC) is an effective medical procedure for use in identifying polyps and cancers in the bowel. Typically, this procedure involves cleansing the patient's bowel, distending the patient's colon by insufflation, scanning the patient, and analyzing the acquired images. However, the proper amount of distention following insufflation of the colon is a subjective measure and can lead to variable and/or inaccurate results. In addition, patient intolerance of colonic distention can lead to patient motion, which can also affect the accuracy of results. Therefore, the present invention is drawn to an apparatus and methods for objectively determining the proper amount of colonic distention and relative patient sensations, which improve the accuracy of medical procedures such as a VC. Colonoscopy is used to visually examine entire colon and rectum for abnormalities. According to the Center for Disease Control (CDC), 14.2 million colonoscopies were performed in the USA in 2002 and half of those were screening colonoscopy procedures. A recent study published in the New England Journal of Medicine (see Publications below) indicates that Virtual Colonoscopy has a success rate comparable with that of standard colonoscopy at a fraction of the cost. Medical equipment related to virtual colonoscopy has high growth potential in the US, European and Asian markets.

## **APPLICATIONS**

This invention is applied to the field of CT imaging of the colon.

## **ADVANTAGES**

-Generally colonoscopy enables the physician to see things such as inflamed tissue, abnormal growths, and ulcers. - This technology discloses the new apparatus and method for use in analyzing a patient's bowel such as pressure and pain perceived by patient. -This technology improves the accuracy of a VC by objectively determining distention of the colon relative patient sensation.

## **R&D REQUIRED**

Clinical trial to determine the efficacy and accuracy of this device.

## **LICENSING POTENTIAL**

UM seeks to develop and commercialize by an exclusive or non-exclusive license agreement with a company active in the application field.

## **CONTACT INFO**

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## Additional Information

### INSTITUTION

University of Maryland, Baltimore

### PATENT STATUS

US CON patent 10,092,234 issued 10/09/2018, Canadian patent 2,702,489 issued 3/14/17, European Patent 2848192 issued date 01/19/2022

### LICENSE STATUS

Available for non-exclusive license

### CATEGORIES

- Devices
- Imaging devices

### INVESTIGATOR(S)

David Vining

### ATTACHMENTS

-  [Download document\(48\).pdf](#)

### EXTERNAL RESOURCES

- [Extracolonic findings at virtual colonoscopy: an important consideration in asymptomatic colorectal cancer screening.](#)
- [Accuracy of CT colonography for detection of large adenomas and cancers.](#)
- [Computed tomographic colonography \(virtual colonoscopy\): a multicenter comparison with standard...](#)

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