Sucrose-Derived Scaffold for Gd MRI Contrast Agent and Method for Use in Colon Cancer Screening

Title: A Novel Gd-Sucrose Scaffold for Oral Administration in MR-Colonography

Invention: This invention is a targeted molecular imaging agent to be used in conjunction with MRI or CT. It is designed especially for the early and specific detection of colorectal cancer. The formulation of this novel contrast agent allows for non-invasive imaging of the entire colon, with excellent soft-tissue contrast.

Background: The key to high survival rates for colorectal cancer is the early detection and staging of the disease. Current methods lack high and specific visualization, or are invasive, which leads to patient noncompliance. Over the last decade, MRI used for staging of rectal cancer has been reported to up or down stage rectal cancer by 20%. New imaging agents therefore have an important role to play in improving patient outcomes.

Applications:

• Differentiation of benign and malignant disease
• Evaluation of response to chemotherapy/radiation therapy
• Selection of a patient-specific cancer therapy

Advantages:

• Can detect small or flat polyps
• Enhanced spatial resolution
• Noninvasive (could improve patient noncompliance)

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