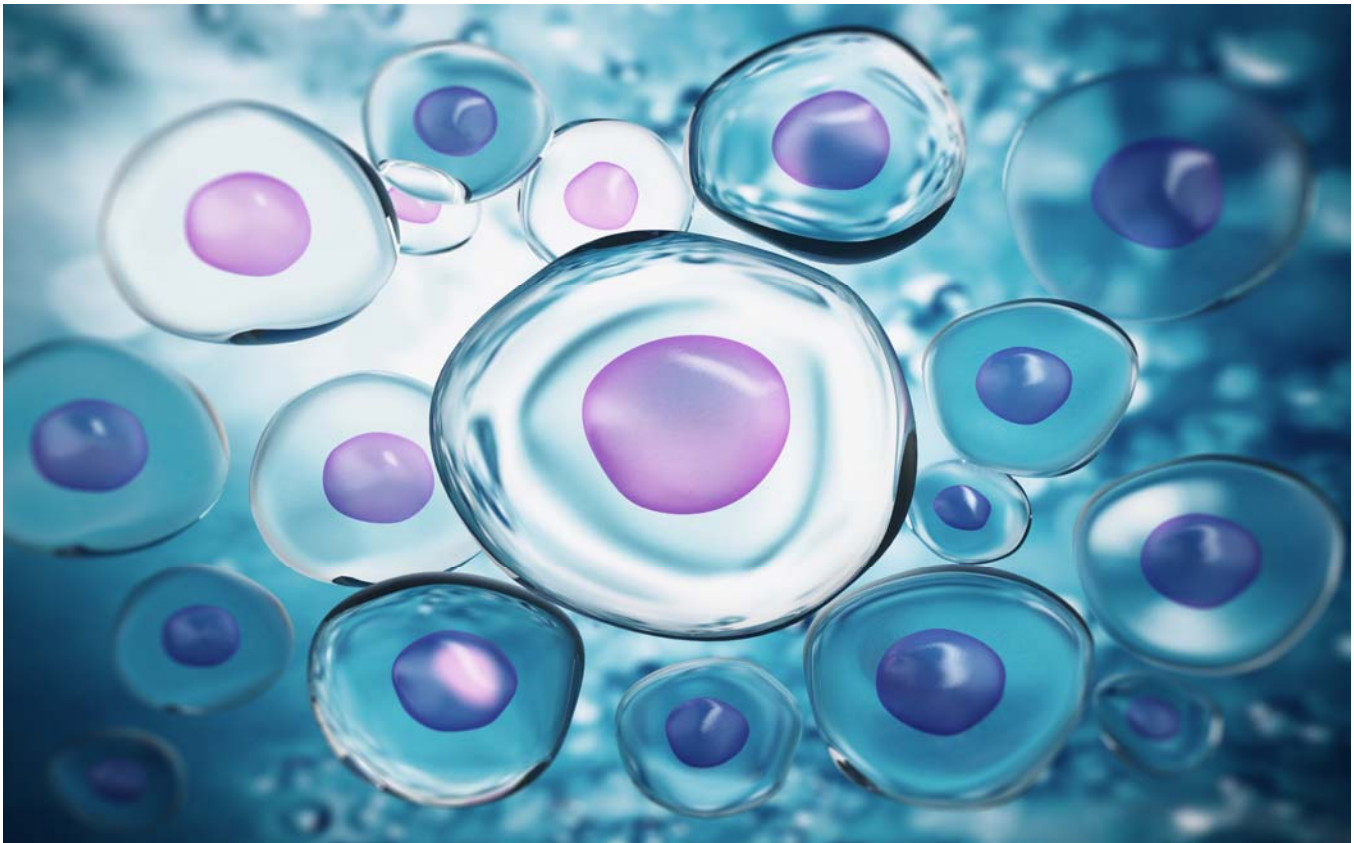


Non-invasive Multimodal Functional Imaging of the Intestine

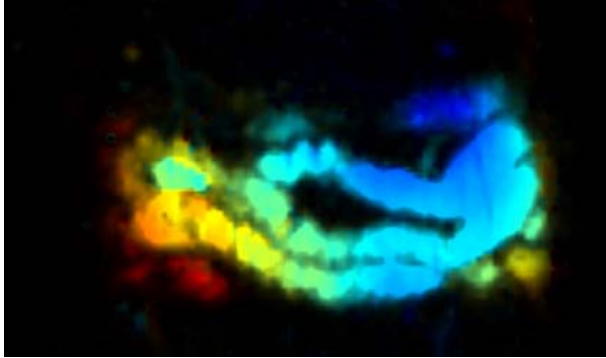
Researchers at The University at Buffalo have developed a unique method to prepare GI tract imaging contrast agents. This innovation is a breakthrough for GI tract imaging and can be used to effectively treat patients. The patented method can be used to prepare optical imaging contrast dye that is not readily absorbed by the GI tract.

It achieves this by producing a novel nano-formulation called 'Nanonaps' for a safe, non-invasive, and non-ionizing approach for dynamic molecular imaging of the gastrointestinal tract in real time. Nanonaps are stable at low pH and following oral administration, they can pass through the GI tract with minimal systemic absorption or staining of the intestine. Moreover, Nanonaps can be readily detected through the abdomen using Photo Acoustic Tomography, which highlights their potential as a platform for safe, high resolution, and non-invasive examination of intestinal anatomy and motility.

These features would be very valuable when diagnosing many GI related disease and other diagnostic scenarios.



Non-invasive Multimodal Functional Imaging of the Intestine



APPLICATIONS AND MARKETS

- GI tract optical imaging
- Superior delivery of optical contrast agents

ADVANTAGES

- GI tract imaging without systemic absorption.
- Safe and Organic

PATENT STATUS

US Patent Granted September 12, 2017
US Patent No. 9,757,334

PCT National Date January 2, 2017
Foreign Patent Filings in Multiple Countries

RELATED PUBLICATIONS

Zhang, et al., "Non-invasive multimodal functional imaging of the intestine with frozen micellar naphthalocyanines," *Nature Nanotechnology*, 9. (2014) 631-38.

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