### Title: Disposable Optically Guided Feeding Tube Not Requiring Radiographic Placement Confirmation

#### Invention Summary
The invention is a new type of feeding tube that includes on-board navigation and manipulation functionality together with real time positioning. This new feeding tube system will facilitate bedside placement for both nasogastric and nasoenteric feeding tubes. Tube placement will not require fluoroscopic or endoscopic guidance. Radiographic confirmation of tube placement will not be needed.

#### Market Applications
All healthcare institutions use x-rays to confirm feeding tube placement. This invention would eliminate the need for these x-rays and could replace the majority of feeding tubes that are considered the current state of the art.

#### Features, Benefits & Advantages
Current feeding tubes are either placed “blindly”, fluoroscopically using a guidewire, or through the use of an endoscope. Placement is confirmed radiographically. This invention would allow visualization of placement without the need for fluoroscopy or endoscopy and without the need for confirmation using x-rays. Expense is reduced, the procedure is simplified and does not expose the patient to unnecessary radiation. The invention will also be completely disposable, eliminating the need for re-sterilization of an endoscope.

#### Intellectual Property & Development Status
This concept-stage invention is the basis for one of the design projects for the Bioengineering 3801/4801 Design Class sequence, and will be further developed in that context. It is available for developmental research support/licensing under either exclusive or non-exclusive terms.

#### Related Research
- [http://www.utahgastroenterology.org/](http://www.utahgastroenterology.org/)
- [http://www.bioen.utah.edu/research/research_initiatives.php?op=show&id=5](http://www.bioen.utah.edu/research/research_initiatives.php?op=show&id=5)

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