

# MU Ltd.

*A Pioneer of the Independent Medical Mini-robots (IMER) System*

## Outline and Principal Business

## Turning Points

### 【Approach to IMER system】

After the retirement of the president from Ryukoku Univ. in March of 2011, MU Ltd. was founded to realize the self-propelling capsule

endoscopy (or the independent medical mini-robots, IMER, system) "MiniMermaid<sup>®</sup>" with Individual and continued 20 years development.

## Leading Products

## Strength

### 【Significance of IMER System】

The capsule endoscope (CE) is an innovative device for painless examination of the interior of the gastrointestinal tract, especially small intestine, which was given initial approval by the U.S. Food and Drug Administration in 2001. Unlike the conventional esophagogastroduodenoscope (EGD) and colonoscope, CE does not allow examiners to observe a lesion from a desired location and direction in real time. To overcome this disadvantage, we have been endeavoring to develop a driving

system for a CE using a magnetic field.

After making a contract with Osaka Medical College, we have successfully applied the system to stomach of a dog in vivo in 2009, stomach and colon of a human in 2010 and total digestive tract of a human in 2011.

The system will be a pioneer of painless medical mini-robots capable of moving freely in the body.



← MiniMermaid

Mag. field →  
Generator



## Future Development

## Vision

### 【Expected Market】

As the IMER system is applicable to clinical diagnosis of whole digestive tract in a short time at once, great market is expected to find cancer earlier and to improve QOL .

### 【Searching for partners】

We are looking for business partners to assist in obtaining registered medical certification and to support financially.

## Company Data

## Data

**Address:** 1-5 Yokotani, Seta Oe-cho, Ohtsu, 520-2123 Japan.

**Phone & FAX:** (+81)77-543-7814 **E-mail:** ohtsuka@mu-frontier.com

**URL:** <http://www.mu-frontier.com>

**Foundation:** March 16, 2011

**President & CEO:** Naotake OHTSUKA (PhD in Engineering, Registered Cons. Engr, Emeritus Prof. of Ryukoku University)



← MiniMermaid swimming in stomach of a human

→ Stomach wall shot by MiniMermaid

