# MiroCam® Overview



#### IntroMedic Overview

**Introlledic** is a global company specializing in development and manufacturing of high performance wireless capsule endoscopes, based on innovative & patented data communication technology.

#### IntroMedic Overview:

- HQ in Seoul, Korea
- Main product: MiroCam capsule endoscope
- Established 2004
- Employees: 50



# IntroMedic Key Milestones

Year	Milestone
1999	<ul> <li>Intelligent Microsystem Center (IMC) established by the Korea Ministry of Science &amp; Technology</li> </ul>
2000	Contract with IMC for development of capsule endoscope technology
2001	<ul> <li>Korean patent application filed for telemetry using human body as a medium</li> </ul>
2002	<ul> <li>US patent application filed for telemetry using human body as a medium</li> <li>Prototype capsule completed and press release announced</li> </ul>
	<ul> <li>Korean and PCT patent applications filed for "Methodology and apparatus for receiving data in a human body communication system" and "Methodology and system for data communication in the human body and sensors"</li> </ul>
2004	<ul> <li>Metis Medical Systems Co., Ltd. established (Sept. 3, 2004)</li> <li>Nominated as one of the Top 10 Major R&amp;D Achievements by the Ministry of Science &amp; Technology</li> </ul>



# IntroMedic Key Milestones

Year	Milestone
2005	Capsule endoscope exhibited at DDW Chicago
	Two Korean patents issued
2006	Company renamed "IntroMedic Co. Ltd"
	<ul> <li>KFDA clinical trials completed and ISO 13485 obtained</li> </ul>
2007	Received Korean GMP approval
	<ul> <li>Received Korean FDA Approval for MiroCam system</li> </ul>
	Received CE MDD approval in August
	◆ KFDA Approval / CE Mark / TGA (Australia)
2008	Applied for 510K for FDA (USA)
	<ul><li>Received SFDA (China) – April</li></ul>
	<ul> <li>Applied ANVISA (Brazil)</li> </ul>
	<ul> <li>Received for CMDCAS (Canada)</li> </ul>



# IntroMedic Key Milestones

2009 • Received ANVISA (Brazil)

Exporting to over 45 Countries now



# MiroCam System Overview

### Capsule Endoscopy System

- MiroCam system includes the following components:
  - MiroCam capsule
  - MiroCam receiver (plus accessories)
  - MiroView Workstation
    - o MiroView / MiroView Express





### Image Resolution & Quality

- Highest image resolution of 102,400 (320x320)
  - Competitor resolution 256x256

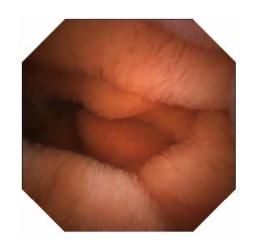
#### **Image Capture Rate**

- Highest rate @ 3 frames per second
  - Competitors @ 2 frames per second

Esophagus Stomach Small Bowel Colon

### Capsule Operation Time

- MiroCam has longest operation time of > 11 hours
  - − Competitor's ~ 8 hours
- 11 hours ensures images of entire small bowel
  - MiroCam also able to capture colon images
- Why is this important?
  - 20 to 25% of cases do not reach ileo-cecal valve in 8 hours

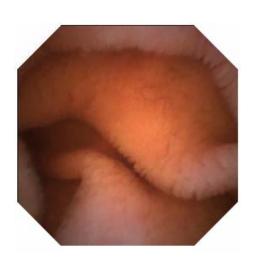




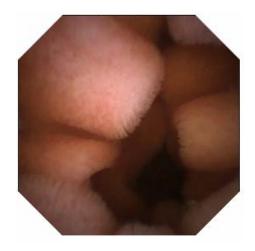


#### Capsule Size

- MiroCam is the smallest capsule endoscope @ 11x24mm
  - − Competitor's ~ 11x26mm
- Smaller size is easier for patient's to swallow
- Capsule includes 10% free space for future development









#### Capsule Field of View

- Field of View of 150°
  - Competitor's Field of View  $\sim 140^{\circ}$  /  $156^{\circ}$
- High precision lens system
  - Enables more thorough diagnosis





#### MiroView Overview

#### MiroView Real Time Viewer

- Typically used for patient management
- Attach to receiver via USB, click start





#### MiroView 2.0 Overview

#### Three Programs

#### MiroView Server

- Database Management
- Server starts automatically

#### MiroView Operator

- Input Patient Info
- Receiver Initialization
- Upload Data from Receiver
- Data Backup
- Account Management

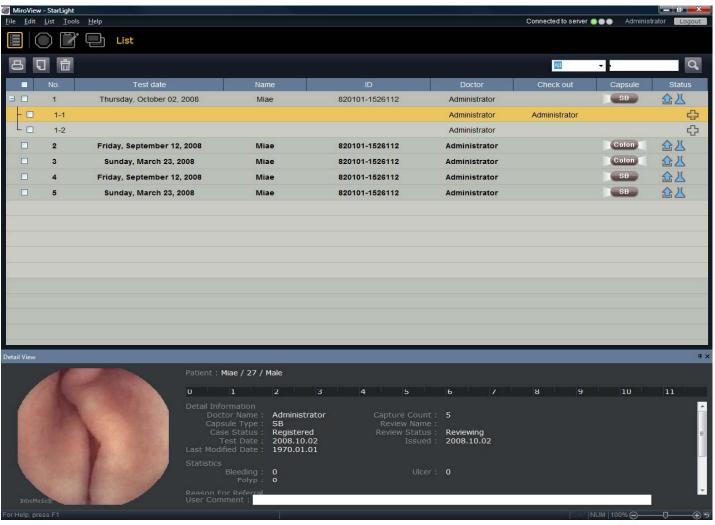
#### MiroView Client

- List Mode
- Review Mode
- Report Mode
- Export Mode
- Image Atlas
- Express View
- SGIB Mode
- Positioning Window
- PACS connect ability



#### MiroView 2.0 Main Features

User Administration Function



#### Multiple Review

Add New Review

Physicians from different locations of the hospital can review the same patient files at the same time and save each study separately. This can be done by clicking "Add New Review"





#### **Review Mode**





### Review Mode – Range View



- -Displays a range of images to readily identify landmarks in the GI tract
- -Side bar images will move 1 image per/sec while the center images will display images per user selection. ie,15 images per sec



#### Review Mode – Map View



- -Displays a range of thumbnail images to readily identify landmarks in the GI tract
- -Similar to Given's color bar but different technology and patent



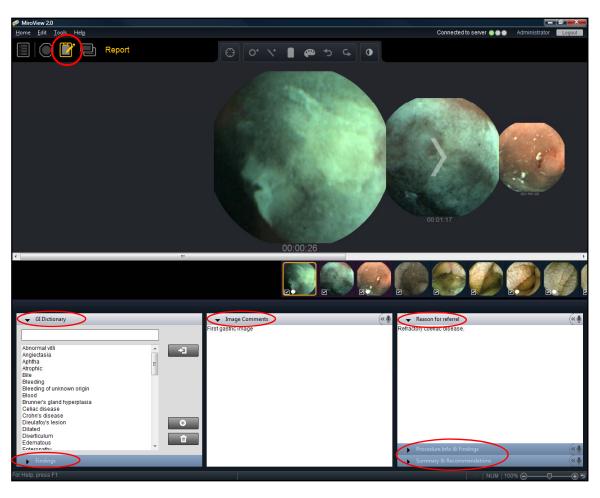
### **Express View**



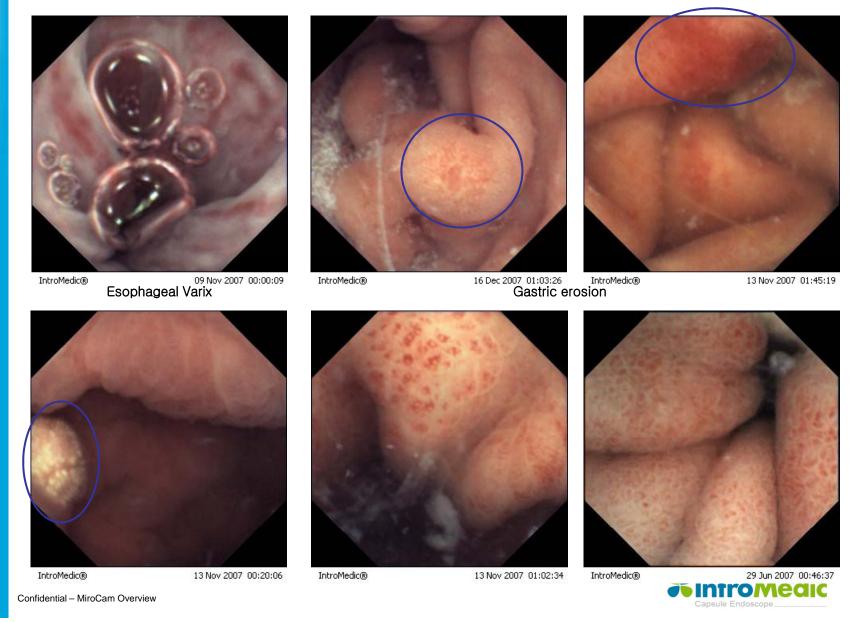
Upgraded version of the "Quick Mode" - Reduces image count; enabling the physician to more efficiently review and generate patient reports.

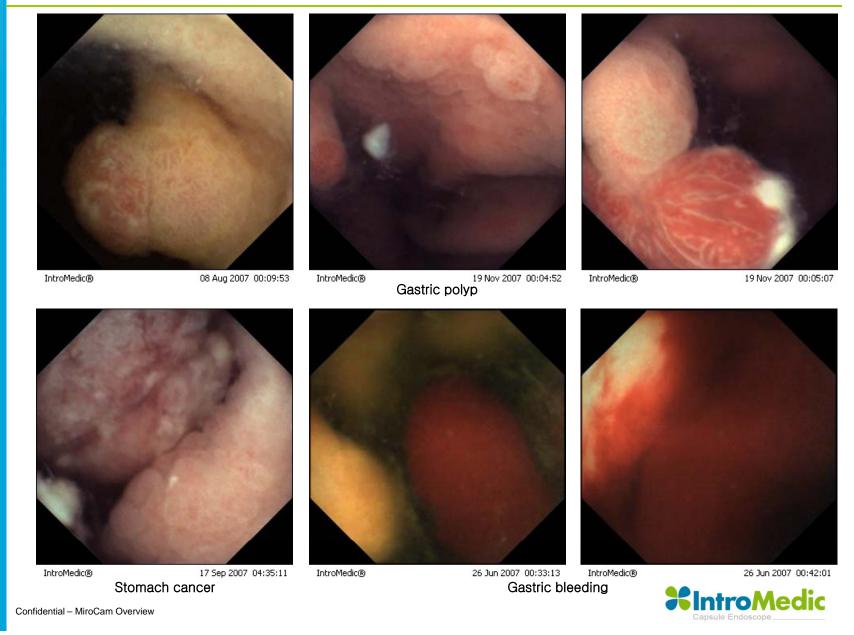


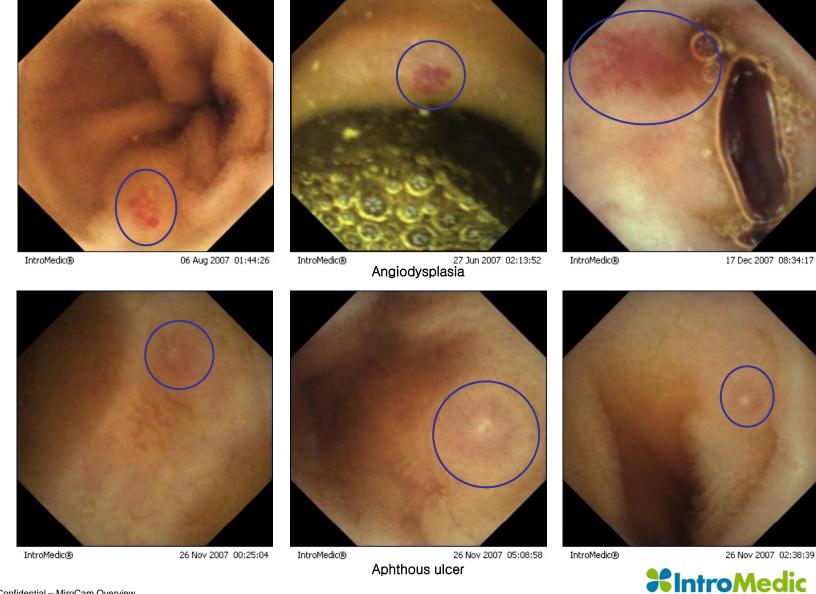
### Report Mode

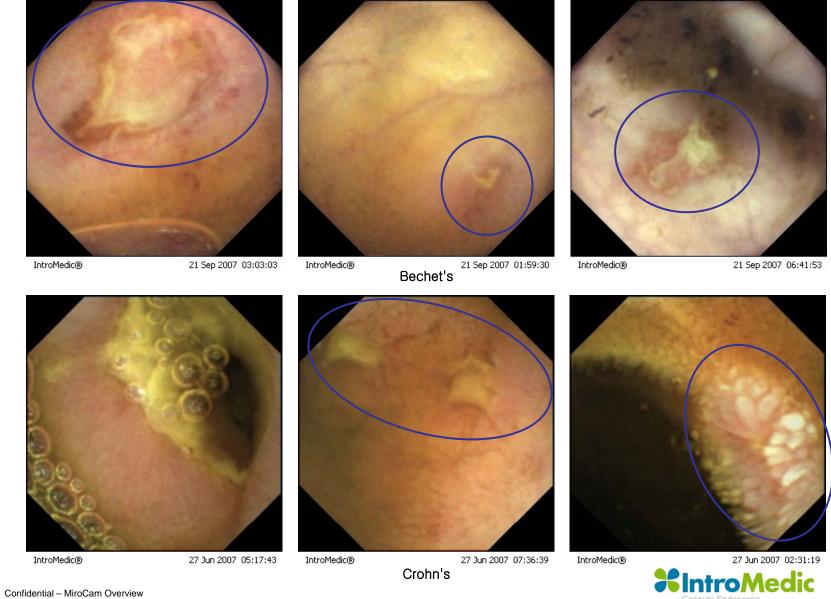








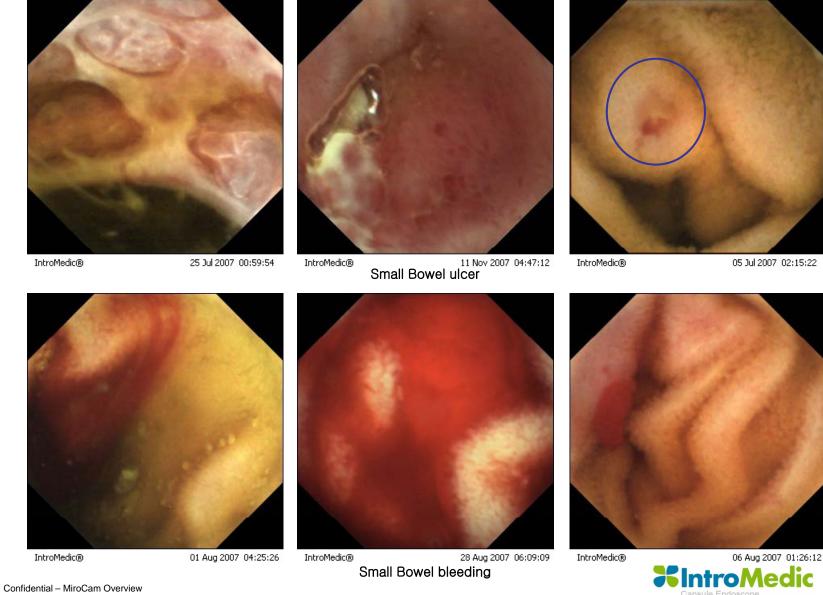


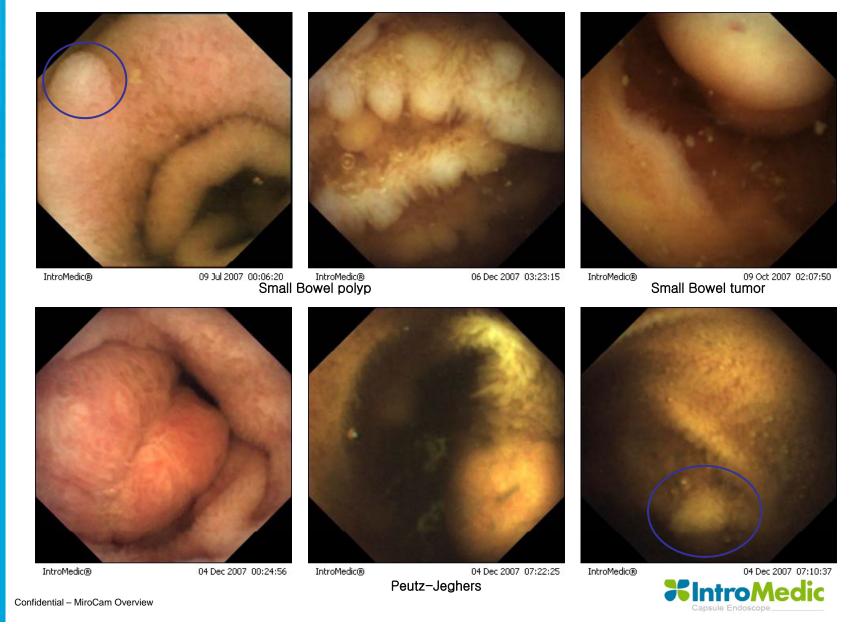














# Thank you

