

FUJIFILM DEBUTS INNOVATIVE SURGICAL VISUALIZATION SYSTEMS FOR MINIMALLY INVASIVE SURGERY IN U.S. MARKET

Valhalla, N.Y. – FUJIFILM New Development, U.S.A., Inc., introduced new surgical visualization systems, marking its entry to the growing minimally invasive surgery market in the US. The company plans to expand the current realm of minimally invasive tools, leading the way in developing the next generation of products designed to handle more sophisticated surgeries.

“As a comprehensive healthcare organization focused on the entire continuum of care—prevention, diagnosis and treatment—the minimally invasive surgical space is an appropriate market segment for Fujifilm,” said Takaaki Ueda, President and Chief Executive Officer, FUJIFILM New Development, U.S.A., Inc. “Drawing on Fujifilm’s core technologies and expertise gained over many years in digital radiography, endoscopy, women’s health, ultrasound, and healthcare IT, Fujifilm is well positioned to bring innovations to the industry.”

FUJIFILM New Development, U.S.A., Inc. will be led by Stephen Mariano as Vice President and General Manager, and Scott Barfield has been named Vice President of Business Development. The product portfolio is targeted to surgeons and clinicians who perform surgical procedures in a range of medical specialties. The following systems are now available in the United States:

FUJIFILM Ultra-Slim Video Laparoscope System—Using a proprietary Super-Honeycomb CCD technology, the EL-580FN delivers exceptional image resolution, excellent color fidelity, and sharp display quality. Product features include “Chip on the Tip” high definition digital image processing, less-fogging, autoclave sterilization re-processing, and a low profile, light weight ergonomic handle. The Ultra-Slim 3.8mm diameter distal end—42% smaller area than most—was designed to improve clinical workflow, reduce physician fatigue, and potentially reduce the size of incisions. The EPX-4440FN Digital Video Processor System features advanced image HDTV 1080i processing technology to facilitate endoscopic diagnostics and therapies. Automatic light control provides optimal illumination and an anti-blur function extracts high quality motion images. The system also includes a High Definition Image with a 2 x digital zoom .

FUJIFILM Full High Definition Surgical Visualization System—Designed for a wide variety of surgical applications, this solution includes a portfolio of rigid surgical scopes, cameras and video processing systems. The camera includes optimized settings for various clinical specialties. The system’s Full HD Video Controller offers edge enhancement,



automatic gain control (AGC) and dynamic contrast function. In addition, selective color enhancement, smoke reduction and grid removal features all enhance observation abilities. A High Power 200 LED Light Source allows the user to adjust the intensity of the light from 5-100%—providing operational efficiency and lowering power consumption.

“Fujifilm’s innovation combines exceptional image quality with a durable, low profile, easy to use scope. It has the potential to move us forward into the realm of Reduced Port Surgery and ultimately improve how minimally invasive surgeries are performed in the future,” said Paul G. Curcillo, II, MD, FACS, Chief of Minimally Invasive Surgery and Director of Minimally Invasive Surgical Initiatives and Development at Fox Chase Cancer Center based in Philadelphia, PA and pioneer in Single Port Access surgery.

Based on a “patient-first” philosophy, Fujifilm’s mission is to develop innovations focused on practical applications that can be utilized in everyday patient care while raising the standard of care. Fujifilm technologies will allow surgeries to be performed with less pain while reducing recovery times and improving patient outcomes.

“The Ultra-Slim Video Laparoscope is unique compared with all the other scopes I have used since beginning Single Port Access Surgery in 2007. It is a small, lightweight scope providing excellent image quality and less muscle fatigue on holding the scope continuously during procedures,” stated Stephanie A. King MD, Director of Minimally Invasive Gynecologic Surgery at Fox Chase Cancer Center.

About Fujifilm

FUJIFILM New Development, U.S.A., Inc., is an innovative provider of minimally invasive surgical

systems designed to meet the needs of surgeons across the clinical spectrum today and well into the future. From an unparalleled ultra-slim video laparoscope system to a full high definition surgical visualization system, Fujifilm's product portfolio is revolutionizing the conventional surgical endoscopic procedure and raising the standard of patient care.

FUJIFILM Holdings Corporation, Tokyo, Japan brings continuous innovation and leading-edge products to a broad spectrum of industries, including: healthcare, with medical systems, pharmaceuticals and cosmetics; graphic systems; highly functional materials, such as flat panel display materials; optical devices, such as broadcast and cinema lenses; digital imaging; and document products. Fujifilm is committed to environmental stewardship and good corporate citizenship.

For more information, please visit:
fujifilmholdings.com

MULTICENTER PROSPECTIVE STUDY OF MORE THAN 4,000 PATIENTS SHOWS WATS3D INCREASES DETECTION OF PRE-CANCEROUS CHANGES IN THE ESOPHAGUS BY OVER 80%

SUFFERN, N.Y., – CDx Diagnostics, developer of WATS3D, or Wide Area Transepithelial Sampling with 3D Tissue Analysis for the detection and surveillance of Barrett's esophagus, today announced results from a recent multicenter prospective trial of more than 4,000 patients, demonstrating that adjunctive use of WATS3D increases the detection of both Barrett's esophagus and esophageal dysplasia by over 80%. The study results were published in the latest issue of United European Gastroenterology Journal and featured in the American Society for Gastrointestinal Endoscopy (ASGE)'s Scope Tech Talk video series. [youtube.com/watch?v=jeARjK_NDHM&feature=youtu.be](https://www.youtube.com/watch?v=jeARjK_NDHM&feature=youtu.be)

Esophageal adenocarcinoma, one of the most fatal

and fastest growing cancers in the US, can be prevented if detected at a precancerous stage. Gastroenterologists perform more than five million upper endoscopies each year on patients with chronic heartburn and Barrett's esophagus in an effort to find these precancerous cells before they can progress to cancer. A major problem with this strategy is that prior to the availability of WATS3D endoscopists had to rely on taking small random forceps biopsies at 1-2 cm intervals to find these abnormal cells, leaving more than 96% of the endoscopically suspect area completely untested.

With the availability of WATS3D, doctors are able to rapidly collect a sample from a much larger surface area of the esophagus. By combining a larger sampling area with patented 3D imaging and expert cytopathology, WATS3D has far reaching implications for protecting a patient's health. If precancerous cells are present, they can now be easily detected and removed or destroyed before they become cancerous – essentially preempting esophageal cancer.

The multicenter prospective trial was conducted at 25 community-based gastrointestinal (GI) centers across the United States. In the study, 4,203 patients were tested for esophageal disease. The findings show that with the inclusion of WATS3D overall detection of Barrett's increased by 83%, while the detection of dysplasia increased by 88%. The study concludes that the sampling error can be improved dramatically with use of this adjunctive technique.

“Without WATS3D, gastroenterologists are forced to rely on chance, hoping that one of their small random forceps biopsies will happen to land on a highly focal area of precancer that may exist in their patient's esophagus,” said Mark Rutenberg, Founder and CEO of CDx Diagnostics, the developer of the WATS3D diagnostic system. “Now that we can more easily treat esophageal precancer through endoscopic ablation, the remaining obstacle to preventing the most rapidly growing cancer in the US is to more reliably identify those GERD and Barrett's patients with these still harmless but precancerous changes so that we can treat them in time to prevent their progression to adenocarcinoma. These results clearly demonstrate that WATS3D can very effectively help to fill that critical gap in current routine GI care.”

“These data confirm findings from previous clinical trials showing that WATS3D biopsy significantly increases the detection rate of Barrett's Esophagus as well as precancerous changes in esophageal tissue in GERD patients,” said Seth Gross, MD, lead investigator. “Ultimately, WATS3D revolutionary technology is making esophageal cancer a potentially preventable disease.”

“This study exhibits the fundamental limitation

PRACTICAL GASTROENTEROLOGY

Visit Our Website:

practicalgastro.com

with standard forceps biopsies in the setting of Barrett’s diagnosis and surveillance and sheds light on the ‘sampling error’ phenomenon that may provide false reassurance to both patients and GI professionals,” said Dr. Vivek Kaul, Segal-Watson Professor of Medicine and Chief of the Division of Gastroenterology and Hepatology at the University of Rochester Medical Center. “These results clearly demonstrate that the wide-area sampling and expert analysis aspects of WATS3D technology can effectively help fill the information gap in diagnosis and surveillance for patients with Barrett’s esophagus.”

The WATS3D study was also highlighted as part of the ASGE’s Scope Tech Talk video series and distributed to over 15,000 members in January 2018.

[youtube.com/watch?v=jeARjK_NDHM&feature=youtu.be](https://www.youtube.com/watch?v=jeARjK_NDHM&feature=youtu.be)

About CDx Diagnostics

CDx Diagnostics’ mission is to provide clinicians with easily implemented, cost effective tools to preempt cancer through enhanced detection of precancerous change. This is accomplished by a proprietary diagnostic platform that synthesizes computer imaging, artificial intelligence, molecular biology and three-dimensional cytopathology to detect precancerous change earlier and more reliably than prior methods. CDx tests require only a few minutes of practice time, are highly cost effective, widely reimbursed, and address a recognized critical gap in the current diagnostic standard of care that results in thousands of otherwise unnecessary cancer deaths each year. Routine clinical use of CDx testing in the oral cavity and esophagus has prevented thousands of cancers, and application of the CDx diagnostic platform to prevent cancers of the throat, bile duct, stomach, and surveillance for dysplasia of the colon in patients with IBD is currently in progress.

About WATS3D

CDx Diagnostics’ WATS3D addresses the major inadequacies inherent in current random forceps biopsy testing of the esophagus. In just a few minutes, endoscopists can easily obtain a wide area, full-thickness transepithelial tissue sample for computer-assisted 3D laboratory analysis by expert pathologists. In large multicenter clinical trials, WATS3D has been found to significantly increase the detection rate of both Barrett’s esophagus and esophageal dysplasia. The high sensitivity and inter-observer agreement of WATS3D is due to the larger tissue area sampled, and the proprietary 3-Dimensional computer imaging system that is based on an algorithm developed as part of the U.S. Strategic Defense Initiative missile defense program.

To learn more about WATS3D, visit:
wats3d.com

NOVEL ROLE OF AN ULCERATIVE COLITIS RISK GENE IN INTESTINAL BARRIER FUNCTION: NEW DISCOVERIES COULD LEAD TO NEW TREATMENT OPTIONS

New York, NY – A break-through discovery being reported in the February online issue of Science Magazine advances our understanding of the genetic causes of ulcerative colitis. The research, funded by the Crohn’s & Colitis Foundation (the Foundation), and conducted by investigators at Massachusetts General Hospital and the Broad Institute, reveals a genetic variant associated with ulcerative colitis (a form of Inflammatory bowel disease (IBD) that controls the intestinal barrier. The finding could lead to new therapeutics that would restore patients’ normal intestinal functioning to relieve symptoms and put their disease into remission.

The new study, led by Ramnik Xavier, MD, PhD, Professor of Medicine at Harvard Medical School and Chief of Gastroenterology at Massachusetts General Hospital and Kara Lassen, Ph.D., Research Scientist at The Broad Institute, identifies the mechanism by which a genetic change to a single protein produced by the C1ORF106 gene (a largely uncharacterized gene known to contain genetic variants that confer risk for ulcerative colitis) can alter the junctions that connect cells to form the lining of the human gut, resulting in impaired intestinal barrier function, or “leaky gut.” The fact that this condition has been observed in patients with ulcerative colitis, as well as in healthy family members of some patients, suggests a genetic component might underlie the phenomenon.

C1ORF106 is one of the genes identified as involved in IBD by earlier research sponsored by the Foundation’s Genetics Initiative. It is expressed in specialized cells, called epithelial cells, that create a physical barrier between microbes in the gut and the rest of the body. Researchers found that the protein produced by this gene forms a complex with other proteins known as cytohesin-1 and Arf6, and that this complex regulates the integrity of the junctions between epithelial cells that form the intestinal barrier. They also found that mice lacking the C1ORF106 gene, exhibit increased susceptibility to bacterial infections, and solutes are able to cross the barrier more easily.

“Maintaining precise control over these junctions is critical to intestinal function,” explains Dr. Xavier, lead author of the study. “Even small changes in the stability of these junctions alter how our bodies are exposed to environmental stressors and microbes in our intestines.”

“Although many current therapies that treat ulcerative colitis focus on suppressing the immune system, it is clear that other cell types in the intestine

(continued on page 70)

(continued from page 68)

participate in advancing the disease,” adds Caren Heller, MD, MBA, the Foundation’s chief scientific officer. “By fully understanding how these intestinal junctions are controlled, we can develop new therapeutics aimed at strengthening and restoring the intestinal barrier and combine them with immune targeted therapies for pathways to correct leaky guts.”

“The Foundation is committed to supporting every possible opportunity for identifying potential therapeutic targets that will lead to better treatment options for IBD patients,” stresses Michael Osso, president and chief executive officer of the Foundation. “We’re casting a broad net to support clinical and translational research that opens promising new avenues for diagnosis, therapy, and prevention of IBD – as soon as possible. The discoveries published by Dr. Xavier and his colleagues show that our strategy is paying off.”

Crohn’s & Colitis Foundation

The Crohn’s & Colitis Foundation’s mission is to cure Crohn’s disease and ulcerative colitis, and to improve the quality of life of children and adults affected by these diseases. The Foundation ranks third among leading health non-profits in the percentage of expense devoted to research toward a cure, with more than 80 cents of every dollar the Foundation spends going to mission-critical programs. The Foundation consistently meets the standards of organizations that monitor charities, including the Better Business Bureau’s Wise Giving Alliance (give.org) and the American Institute of Philanthropy (charitywatch.org).

ASPEN RELEASES NOVEL VIDEOS ON BEST PRACTICES FOR PLACEMENT AND VERIFICATION OF NG TUBES IN PEDIATRIC PATIENTS

SILVER SPRING, MD – ASPEN, the American Society for Parenteral and Enteral Nutrition, has released the

NOVEL Project videos highlighting best practices for inserting and verifying the placement of nasogastric (NG) tubes in pediatric patients with the use of pH measurement for placement verification.

Pediatric patients can have their tubes removed several times a day and using x-rays each time for verification can overexpose them to radiation.

“Thanks to a generous grant from Cardinal Health, we were able to create two videos—one for healthcare professionals, another for caregivers,” said Beth Lyman, MSN, RN, CNSC, Children’s Mercy Kansas City and NOVEL Project Chair. “The video for professionals includes a follow-up survey that asks if clinicians would change their practice after watching it.”

The videos are available at:
nutritioncare.org/NOVEL2

For additional resources on enteral access devices, complications of enteral nutrition, gastrointestinal disease, intestinal failure and more, ASPEN has:

- The ASPEN Adult Nutrition Support Core Curriculum, 3rd Edition
- The ASPEN Pediatric Nutrition Support Core Curriculum, 2nd Edition

Find out more on:
nutritioncare.org

About NOVEL Project

ASPEN launched the NOVEL (New Opportunities for Verification of Enteral Tube Location) Project in 2012. Its mission is to work with others to develop or adapt existing technologies to allow for non-radiologic verification of feeding tube placement, to discern best practices for nasogastric feeding tube verification and disseminate the information.

For more information, please visit:
nutritioncare.org/NOVEL2

About ASPEN

The American Society for Parenteral and Enteral Nutrition (ASPEN) is dedicated to improving patient care by advancing the science and practice of nutrition support therapy and metabolism. Founded in 1976, ASPEN is an interdisciplinary organization whose members are involved in the provision of clinical nutrition therapies, including parenteral and enteral nutrition. With more than 6,500 members from around the world, ASPEN is a community of dietitians, nurses, nurse practitioners, pharmacists, physicians, scientists, students and other health professionals from every facet of nutrition support clinical practice, research and education.

For more information about ASPEN, please visit
nutritioncare.org

PRACTICAL GASTROENTEROLOGY

*Celebrating
Over 42 Years
of Service*

practicalgastro.com