

# MARKETWATCH

Weekly News Bulletin– Issue No.13

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## In this issue...

April 25, 2018 NewScientist.com

### Samsung Unveils New Ultrasound System

The RS85A premium ultrasound system combines exceptional image quality with advanced ergonomics. Samsung NeuroLogica, a subsidiary of Samsung Electronics Co. Ltd., announced that the Samsung RS85A ultrasound system has received U.S. Food and Drug Administration 510(k) clearance. The RS85A is the latest expansion of Samsung's ultrasound portfolio.

"We are pleased to launch the RS85A, a new premium general imaging ultrasound system with superior image quality and usability based on Samsung's advanced ultrasound and radiology technologies," said Philip Sullivan, president and CEO of Samsung NeuroLogica. "The RS85A embodies Samsung's commitment to providing leading technologies to healthcare providers by combining our key values of access, accuracy and efficiency."

The release of the RS85A is the latest demonstration of Samsung's leadership in ultrasound. It features an array of improvements, including:

**MV-Flow:** Allows for visualization of slow-flow micro vascularized structures, which can be difficult to assess with conventional power Doppler ultrasound.

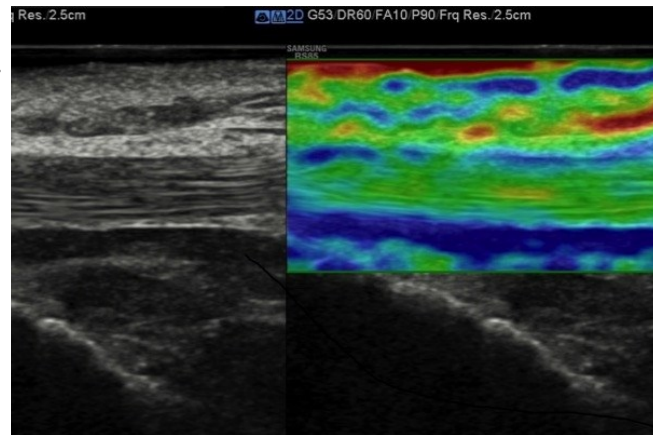
It also provides clinicians an additional way to check lesions for indications of cancer or inflammation. **S-Shearwave Imaging:** Provides new indicators for clinical diagnosis by quantifying the elasticity of tissue or lesions via shearwave elastography, which may help increase the accuracy of diagnosis for breast and liver diseases. **CEUS+:** Diagnoses and characterizes lesions in the liver using a contrast agent in adult and pediatric populations.

**S-Fusion:** Enables simultaneous localization of a lesion using real-time ultrasound in conjunction with other volumetric imaging modalities such as an MRI or a CT, while expanding its capabilities to the prostate gland for precise, targeted biopsy guidance.

The RS85A was also developed to help decrease user-fatigue and repetitive motions with an enhanced monitor arm and increased range of motion and tilt. These improvements allow the user to position the monitor for optimal viewing and control. Additionally, multi-step actions have been combined into a single step to help reduce keystrokes and repetitive user interface interactions.

"Samsung has built diagnostic ultrasound products for more than 30 years," said David Legg, vice president of sales at Samsung NeuroLogica. "We are so confident that our RS85A ultrasound system will perform reliably and be the system that you can depend on for years to come, that we are proud to offer a five-year warranty standard, at no additional cost."

Samsung NeuroLogica, the healthcare subsidiary of Samsung Electronics Co. Ltd., develops, manufactures, and markets imaging technologies. Samsung NeuroLogica, the global corporate headquarters and manufacturer of Samsung computed tomography, is also the U.S. headquarters for sales, marketing, and distribution of all Samsung digital radiography and ultrasound systems. Samsung NeuroLogica's growing portfolio of advanced medical technologies are used worldwide, helping providers enhance patient care, improve patient satisfaction and increase workflow efficiency.



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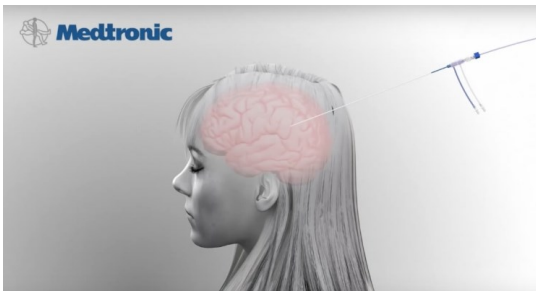
### Siemens Healthineers and Hermes Pardini Group to Create an Unprecedented Automated Lab—April 24, 2018

Siemens Healthineers has taken another leap in its efforts to transform care delivery in in-vitro diagnostics by developing “The Enterprise Project” with the Hermes Pardini Group of Minas Gerais, Brazil. The Enterprise Project is the largest and most complex clinical analysis laboratory known to date and is expected to be capable of handling 110 million sample tubes per year upon completion. Siemens Healthineers, in collaboration with Inpeco, has designed and will deliver this fully automated multidisciplinary solution on an unprecedented scale, which will include at least 100 analyzers—including more than 50 Atellica Solution1 clinical chemistry and immunoassay analyzers from Siemens Healthineers, the largest IVD supplier in this project. The highly sophisticated solution will provide automation of clinical and operational workflow, from sample reception through testing to disposal. The Atellica Solution will help achieve the Hermes Pardini Group’s objectives of operational efficiency and quality: A decrease in turnaround time (TAT) and reduction in operational costs, while driving accuracy, reliability and precision of results. The Atellica Solution delivers high-throughput achieved through intelligent routing capabilities that leverage the solution’s patented bi-directional magnetic sample transport. The immunoassay analyzers deliver on precision, throughput and turnaround time with the industry’s leading productivity per square meter<sup>2</sup>—up to 440 tests per hour<sup>3</sup>.



“The automation track will be more than 330 meters long upon completion and will be used to automatically transport and distribute sample tubes to specific analyzers that can run the specific type of test requested by clinicians,” said Guilherme Collares, Chief Operations Officer of the Hermes Pardini Group. “Unlike conventional laboratory set-ups, where sample tubes have to be moved manually between different analyzers, our enterprise lab will be designed to employ a ‘one-touch, one workflow’ concept to eliminate the need for manual interventions, ensure sample traceability, and reduce the turnaround time to results.

### Medtronic Launches MRI-Guided Laser Ablation System for Brain Surgery in Europe



Visualase gives neurosurgeons another minimally invasive option to precisely target and treat small areas of brain tissue. With the Visualase system, laser energy is delivered to the target area using an applicator. As light is delivered through the applicator, temperatures in the target area begin to rise, destroying the unwanted soft tissue<sup>1</sup>. Because Visualase procedures are guided by MRI images, the procedure can provide precise and controlled ablation. Due to the minimally invasive nature of the procedure, patients typically go home the next day.

## Space Station Robotic Arm Tech Revolutionizes Neurosurgery at Henry Ford Hospital

**DISRUPTIVE  
INNOVATION**



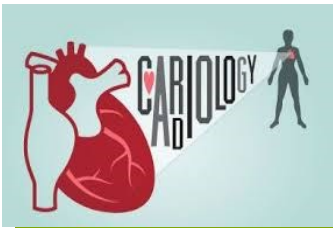
Henry Ford Hospital is the first in Michigan to implement the next generation in robotic imaging technology for brain and spinal surgeries.

Modus V, developed by Synaptive Medical Inc., is a robotic arm developed from technology previously used on the International Space Station to position astronauts, repair satellites, and move cargo. The arm contains a digital microscope which combines a high-powered microscope with a high-definition exoscope, creating unprecedented views of a patient's anatomy, allowing surgeons to perform less invasive procedures with more precision. "We are so thrilled to offer this amazing technology to our patients," said Steven N. Kalkanis, M.D., Chair, Department of Neurosurgery and Medical Director, Henry Ford Cancer Institute. "We were early adopters of the BrightMatter system and we know how transformative it is. Now, to be able to combine it with this new, space-age robotic arm, is creating a whole new level of precision that wouldn't have been possible even five or six years ago." Ian Lee, M.D., senior staff neurosurgeon, Henry Ford Hospital, said the technology helps surgeons avoid critical structures in the brain and spinal cord. "That results in more complete resections, fewer complications, less post-operative pain and a shorter recovery time. The images and enhanced field of vision we have in real-time are simply astonishing. It allows us to visualize the brain in ways we have never been able to before." The Modus V and Henry Ford Hospital are featured in a new video documentary produced by NASA called "Benefits for Humanity: From Space to Surgery," which explores how technology used to build or maintain the International Space Station has been adapted to healthcare.

### Three companies blend their skills to create surgical patient management platform

InTouch Health, a telemedicine company, teamed up with two startups — SafeStart Medical and TapCloud — to debut a new product called InTouch Surgical. The tool, which functions as a surgical patient management platform, was selected as the solution of choice for the more than 220 hospitals in Ontario, Canada's 14 Local Health Integration Networks.

April 24, 2018



Shockwave Medical, a pioneer in the treatment of calcified cardiovascular disease, has announced CE mark and European commercial availability of the Shockwave S4 Peripheral Intravascular Lithotripsy (IVL) Catheter. Shockwave S4 is a low-profile catheter specifically designed to access and treat challenging calcified lesions in below-the-knee (BTK) arteries frequently associated with critical limb ischemia (CLI), a serious



condition associated with significant morbidity and mortality. Many CLI patients do not respond well to endovascular treatment, especially when calcium is present with blockages reoccurring frequently, often requiring reinterventions or even limb amputation.

Intravascular Lithotripsy is an innovative therapy designed to treat calcified leg artery blockages with lithotripsy - sonic pressure waves historically used to treat patients with kidney stones. The technology minimizes trauma within the artery by delivering pulsatile sonic pressure waves locally that fracture calcium inside the artery wall but pass through surrounding soft vascular tissue in a safe manner.

Shockwave S4 complements the existing larger-diameter IVL catheter, which has been available in Europe since 2015 for the treatment of calcified peripheral disease from the iliac arteries down to the knee. Shockwave S4 features many design improvements to enhance deliverability in small, distal vessels, including a longer, hydrophilic shaft, a lower crossing and tip profile, smaller lithotripsy emitters and new stronger balloon material.

“The new Shockwave S4 IVL catheter has the potential to change the treatment paradigm for our most difficult-to-treat patients – those with CLI,” said Prof. Marianne Brodmann, M.D., of the Medical University of Graz. “Acute and long-term outcomes for these patients remain poor, especially for patients with vascular calcification who have a five-fold greater risk of major amputation. Vascular calcium is prevalent in CLI patients and frequently resides deeper in the artery wall, making endovascular treatment more challenging. Intravascular Lithotripsy has the potential to reach and safely treat this deep wall calcium, thereby improving the ability to open these vessels in an effective and predictable manner, while still preserving future treatment options.”

IVL has been demonstrated to be a safe and effective treatment for femoropopliteal arteries in the DISRUPT PAD I and II studies and for infrapopliteal below-the-knee arteries in the DISRUPT BTK study, which demonstrated the feasibility of IVL below-the-knee. Acute performance in a patient population with advanced peripheral artery disease, most suffering from critical limb ischemia, showed low percent residual stenosis (26 percent) and low vascular complications, including no perforations, distal embolization, reflow complications or abrupt closure and only one grade B dissection. There were no major adverse events including death, myocardial infarction, target limb revascularization or amputation through 30 days.

The Shockwave S4 IVL system, similar to other IVL systems, includes a compact, battery-powered generator, a simple and quick hand-held connector cable with a single therapy delivery button and an intuitive catheter, which houses an array of lithotripsy emitters enclosed in an integrated balloon. The catheter is delivered to a lesion similar to standard interventional techniques.

## Healthcare startups take on the challenge of improving medical equipment delivery

### THIS IS DEFINITELY A VALUE ADD WHEN DONE RIGHT



“When Parachute Health founder and CEO David Gelbard’s father was discharged from the hospital following spine surgery, the hospital ordered a walker to assist him as he recovered. But for weeks, it didn’t arrive and Gelbard’s father subsequently fell, adding years to his rehabilitation. Gelbard’s business is designed to add efficiency and provide transparency to the durable medical equipment ordering process. One of the current challenges, Gelbard observed in a phone interview, is the heavy reliance on fax

machines to fulfill these orders. He estimated that at least 15 percent of orders for medical equipment are never delivered. Parachute Health’s approach is modeled after e-prescribing for medication and is designed to integrate with Epic and other electronic health records. Medical equipment logistics is an area of interest for the healthcare industry. In addition to ensuring that patients get critical medical equipment in a timely manner to reduce the risk of readmission, hospitals are also working with healthcare startups and established companies to develop more effective ways to track and manage their own medical supplies.

**DSV**, a global logistics business, notes on its website that supply chain visibility is the biggest challenge to getting supplies delivered on time, closely followed by IT integration issues.

**Emanate Wireless** developed a set of sensors for tracking medical equipment power consumption, temperature, and predict the needs for equipment and maintenance.



**TraceLink** is using different technology solutions to help the pharmaceutical industry manage an increasingly complex drug supply chains and to guard against counterfeit drugs.

**Kit Check** is a company that has focused on helping hospital pharmacies track medications, including auditing controlled substances.

