

RSNA 2018 in Chicago: South Hall, Booth #4136

New MRI portfolio from Siemens Healthineers expands the reach of BioMatrix Technology

- **70-cm open-bore systems, Magnetom Lumina (3 Tesla) and Magnetom Altea (1.5 Tesla), added to portfolio**
- **New Magnetom Amira with BioMatrix expands clinical applications, delivering both consistent quality and financial certainty**
- **All-new in-bore infotainment system Innovision revolutionizes patient experience**
- **Turbo Suite for up to 50 percent faster routine clinical exams**

At the Annual Meeting of the Radiological Society of North America (RSNA) in Chicago, USA, Siemens Healthineers will be presenting its latest MRI portfolio, based entirely on the innovative BioMatrix Technology. By extending the availability of BioMatrix Technology, Siemens Healthineers is transforming care delivery in radiology and improving productivity while ensuring consistent quality. At the same time, Siemens Healthineers is considerably enhancing patient satisfaction during examinations.

Magnetom Lumina (3 Tesla) and Magnetom Altea (1.5 Tesla) are the latest additions to the new portfolio of BioMatrix scanners from Siemens Healthineers and feature a 70-cm bore. In clinical use, both cost-efficient systems support standardization and acceleration of examination workflows. Scan results are therefore highly reproducible, enhanced through the integration of artificial intelligence.

Siemens Healthineers also substantially improves patient satisfaction in MRI exams. New to the portfolio is the revolutionary in-bore infotainment system Innovision that allows patients to watch their favorite show during an MRI exam. Available for all 70-cm bore systems, the innovation reduces the anxiety that can result in motion artifacts or even mean that the scan process has to be stopped. Innovision is designed to feature a mirror

and a screen where movies and music can be played. Furthermore the in-bore infotainment solution is planned to display information such as the remaining acquisition time for the patient. A specially designed pillow transmits clear audio signals and attenuates scanner noise substantially. The planned display makes the inside of the scanner seem larger, which can be beneficial to patients suffering from claustrophobia. Another innovation that provides added patient comfort are the new contour coils, which are placed on top of the patient like soft, flexible and light-weight blankets.

In the 60-cm bore product segment, Siemens Healthineers is introducing BioMatrix Technology to its Magnetom Amira. This will contribute to greater consistency in scan results, enhance financial sustainability thanks to productivity boosting technologies, and expanded clinical applications. For example, the Compressed Sensing technology makes it possible to acquire cardiac function and liver dynamics under free-breathing, making MRI accessible to patients that have difficulty holding their breath.

“BioMatrix provides our customers with a comprehensive set of innovative MR technologies – technologies that automatically adapt to the patient’s anatomical and physiological characteristics,” explains Arthur Kaindl, Head of Magnetic Resonance at Siemens Healthineers. “BioMatrix Technology is the key to making MRI even more consistent and more robust, reducing unwarranted variations in imaging results, and achieving standardized, reproducible results the first time around. The highly efficient workflows mean far greater productivity – regardless of the type of exam and for any patient,” adds Kaindl.

At the heart of BioMatrix are innovative sensors, tuners, and interfaces

BioMatrix Technology from Siemens Healthineers features a combination of sensors, tuners, and interfaces that deliver superior imaging quality for consistent, reproducible results in a short time – regardless of patient or user. BioMatrix Sensors, for example, automatically detect the patient’s breathing pattern. This allows users to select the optimum exam strategy for each individual patient and automatically trigger sequences. The integrated Beat Sensor in the BM Body 12 coil is planned to automatically capture cardiac motion, eliminating the need to attach electrodes, a time-consuming process. The Kinetic Sensor, a built-in camera system in the scanner bore, registers patient head motion, correcting the MRI scan accordingly in real time. This reduces disruptive motion artifacts

and supports a higher diagnostic image quality. A further advantage is higher patient throughput and enhanced productivity since rescans are avoided.

The BioMatrix Tuners – a new intelligent coil technology – automatically adjust scan parameters to adapt to challenging patient anatomies, using CoilShim and SliceAdjust technologies for reproducible high-quality imaging. Innovative BioMatrix Interfaces speed up the scan process by as much as 30%. Patients are positioned automatically and with just one click – thanks to artificial intelligence and the integrated touchscreen user interface.

Higher productivity with the Turbo Suite

With its new Turbo Suite, Siemens Healthineers introduces truly game-changing acceleration techniques. Comprised of customized applications tailored to the clinical questions within musculoskeletal, spine, neurovascular, abdomen, breast and cardiac imaging, Turbo Suite can reduce scan times for complete examinations by up to 50% with no compromise in image quality. This can help increase patient throughput and scanner productivity and lower the cost per scan at the same time, while the patient benefits from shorter waiting and examination times.

Turbo Suite encompasses applications utilizing 2D as well as 3D acceleration technologies. For example, Simultaneous Multi-Slice (SMS) scans multiple slices at the same time and has been expanded to cover core exams, such as musculoskeletal and breast MRI. Another acceleration technique, Compressed Sensing, uses dramatically undersampled data to shorten the acquisition. For example, MRCP (Magnetic Resonance Cholangiopancreatography) exams – can be accelerated by up to a factor of 23, making it possible to be done in just one short breath-hold. Compressed Sensing is also beneficial to imaging moving organs such as the heart and liver. Images can be acquired under free breathing, thus better accommodating patients who are unable to hold their breath. Staff no longer has to complexly plan breathing times and the administration of contrast media. Compressed Sensing allows for comfortable exams and thus enhances the patient experience considerably.

Magnetom Lumina, Magnetom Altea, and Magnetom Amira with BioMatrix are expected to be available during the first half of 2019.

Magnetom Lumina is 510(k) pending. It is not for sale in the U.S. Its future availability cannot be guaranteed.

Magnetom Amira – A BioMatrix System is 510(k) pending. It is not for sale in the U.S. Its future availability cannot be guaranteed.

Cardiac Triggering is still under development and not commercially available yet. Its future availability cannot be ensured.

The motion correction framework is 510(k) pending. It is not commercially available in all countries. Due to regulatory reasons the future availability cannot be guaranteed.

SMS RESOLVE, CS ToF, CS SPACE, CS SEMAC are pending 510 (k) clearances, and are not yet commercially available in the U.S. Its future availability cannot be guaranteed.

The in-bore Infotainment system Innovision™ is still under development and not yet commercially available. Its future availability cannot be guaranteed.

This press release and press pictures are available at

www.healthcare.siemens.com/press-room/press-releases/pr-20181125041shs.html.

For further information on RSNA, please see siemens-healthineers.com/press-rsna.

Contact for journalists

Ulrich Kuenzel

Phone: +49 162 2433492; E-mail: Ulrich.Kuenzel@siemens-healthineers.com

Siemens Healthineers enables healthcare providers worldwide to increase value by empowering them on their journey towards expanding precision medicine, transforming care delivery, improving patient experience and digitalizing healthcare. A leader in medical technology, Siemens Healthineers is constantly innovating its portfolio of products and services in its core areas of diagnostic and therapeutic imaging and in laboratory diagnostics and molecular medicine. Siemens Healthineers is also actively developing its digital health services and enterprise services.

In fiscal 2018, which ended on September 30, 2018, Siemens Healthineers generated revenue of €13.4 billion and adjusted profit of €2.3 billion and has about 50,000 employees worldwide. Further information is available at www.siemens-healthineers.com.