

Precision Medicine

DATA SCIENCE - MULTIOMICS - BIOMARKERS - TARGETED THERAPY

Carlos Larrañeta

Innovation Procurement - Meeting the Needs of Precision Medicine Implementation Challenges

Sara Green

Socio-Political Costs of Implementing Precision Medicine

Henrique Martins et al.

Non-Human Partners in Rehabilitation: How Healthcare Can Embrace Human-Machine Systems

Begoña San José

Enhancing Precision Health with Personalised Wellbeing

Sergey Ivanov

IoT for Diabetes: More Than Just Glucometers





United Imaging First Mobile Digital PET/CT in Europe

United Imaging Healthcare Europe announces the introduction of its first mobile digital PET-CT solution in Italy, Europe. It is now fully operational under the Azienda Unità Sanitaria Locale Piacenza (AUSLP) Hospital.



United Imaging Healthcare Europe, a leading company in advanced medical imaging and radiotherapy equipment, proudly announces the introduction of its first mobile digital PET-CT solution in Italy Europe, now fully operational in the Piacenza province under the auspices of the Azienda Unità Sanitaria Locale Piacenza (AUSLP) hospital Italy.

The first mobile digital PET-CT system in Europe is a result of a successful collaboration between United Imaging Healthcare, Fora Spa and AUSLP Hospital, the premier mobile diagnostic services company in Italy. The mobile unit has been equipped with uMI 550 digital PET-CT system. It is a top-edge digital technology system integrated with 24cm wide PET AFOV, industry fine 2.76mm LYSO, TOF features, digital SiPM detector

key points

- The first mobile digital PET-CT system in Europe is a result of a successful collaboration between United Imaging Healthcare, Fora Spa and AUSLP Hospital.
- This digital PET-CT leverages the powerful capabilities of artificial intelligence.
- The PET reconstruction algorithm is constructed with the CNN-based iterative reconstruction engine trained from uEXPLORER® total-body PET data and AI-empowered workflow.
- The technology enables the unit to produce low-noise PET images, improve image contrast and enable high-speed-scanning while maintaining outstanding PET image quality.



and the finest 2.9mm NEMA resolution with the added benefit of air-cooled detector technology ideally suited for mobile solutions. This digital PET-CT leverages the powerful capabilities of artificial intelligence. The PET reconstruction algorithm is constructed with the CNN-based iterative reconstruction engine trained from uEXPLORER® total-body PET data and AI-empowered workflow to predict low-noise PET images, improve image contrast, and enable high-speed-scanning while maintaining outstanding PET image quality. As a result, the uMI 550 allows for a whole-body PET-CT scan within 6 minutes with 4 to 5 bed positions. uMI550 is also equipped with a unique solution of a data-driven head motion correction algorithm, which results in overcoming the need for repeat scans. The digital detector design with low-voltage power uses less energy, whereas its programmed mobile-specific workflow maximizes patient throughput to enable the ability to scan at multiple locations on the same day. On CT technology, an 80-slice CT scanner with ultra-low noise Z-Detector technology reduces the radiation dose without compromising the quality of imaging. Overall, with its unique features, including automated radioactive source less quality control programmes, multiple radiopharmaceutical support, and United Imaging's unique collaborative lifecycle approach, uMI 550 is a highly reliable machine designed to withstand the needs of large-volume treatment centres.

The partnership between United Imaging, Fora Spa, and AUSLP Hospital is bound to have a significant impact on the healthcare landscape of the Piacenza Province, providing its 285,943 inhabitants with improved access to state-of-the-art advanced imaging modalities.

Prior to the introduction of the mobile digital PET-CT unit, as many as 1200/1300 patients annually travelled

out of the province to obtain PET/CT scans. However, now, thanks to the creation of a fully autonomous mobile digital PET-CT unit equipped with the essential devices for preparing the radiopharmaceutical necessary for carrying out the test and its administration, patients will no longer be forced to make long distances to undergo advanced imaging. Considering the paramount role of digital PET-CT imaging in the diagnostic process and subsequent planning and monitoring of the oncological, neurological and cardiological treatment management. The oncology, neurology and cardiology patients will particularly benefit from the mobile digital PET-CT unit. Moreover, besides facilitating access to cutting-edge imaging modalities, this pioneering solution encourages the work of multidisciplinary groups and shared decision-making as the medical personnel can share PET-CT studies in the company system.

The mobile unit is located in front of the Piacenza hospital, and the tests are managed by the Nuclear Medicine team directed by Massimiliano Casali, in close coordination with the other activities of the department. Since its launch, fifty patients have had the opportunity to undergo PET-CT scans, with estimated 1,800 services per year once the mobile unit becomes fully operational.

United Imaging is confident that the integration of the state-of-the-art uMI550 digital PET-CT system will provide the highest quality imaging and diagnostic confidence for every patient from the Piacenza province of Italy.

United Imaging takes great pride in the fact that patients from the Piacenza province will now have the opportunity to undergo precise diagnosis and receive tailored treatment from the first mobile digital uMI550 PET-CT system.

About United Imaging Healthcare

United Imaging Healthcare was founded in 2011 with a commitment to provide high-performance medical imaging products, radiotherapy equipment, life science instruments, and intelligent digital solutions to global customers. With a mission "To Bring Equal Healthcare for All" and a vision to "lead healthcare innovation", United Imaging is continuously devoted to creating more value for its customers and improving the accessibility of high-end medical equipment and services worldwide through close collaborations with hospitals, universities, research institutions, and industry partners.