UNITED IMAGING

Shanghai United Imaging Healthcare Co., Ltd.

uMI 780

Resolution Revolution

reddot design award
winner 2016

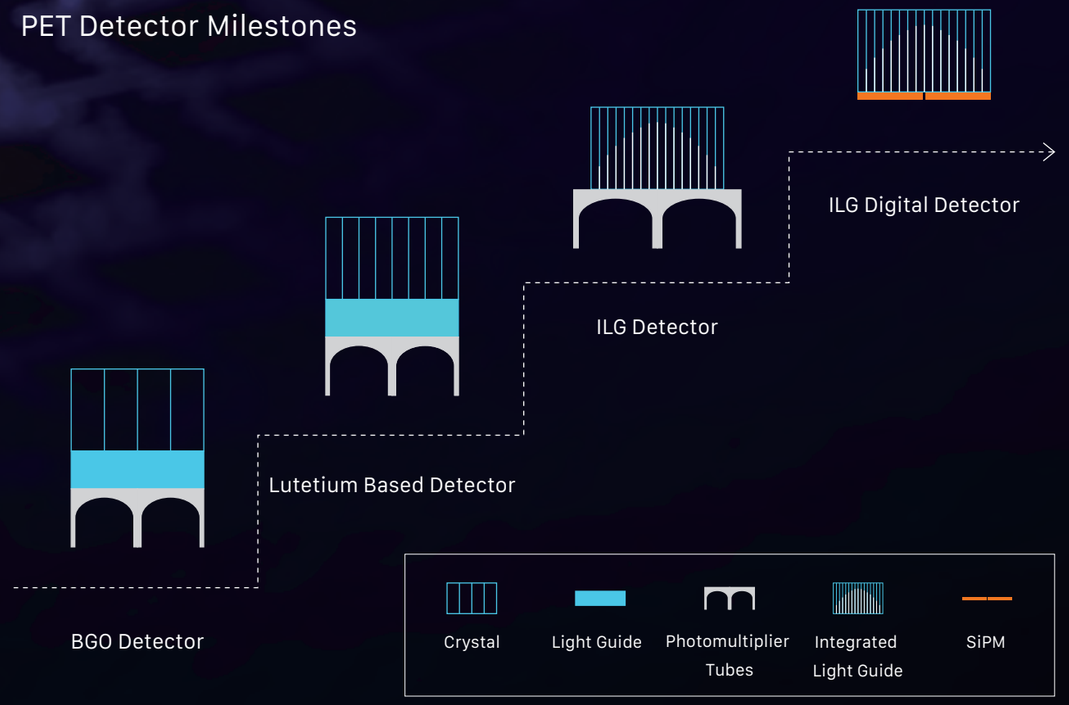
uMI 780

Combining the SiPM based 112-ring PET and the 160-slice CT, the powerful uMI 780 scanner provides superior clarity with lower dose and an ultra-large axial field of view to revolutionize clinical experience.

- 112-ring PET with Integrated Light Guide Digital Detector
- 160-slice High-performance CT

112-Ring PET with Integrated Light Guide Digital Detector

Clarity, Sensitivity, Speed.



High-Precision Crystal

Ultrafine microscopic crystals significantly enhance image resolution.

Integrated Light Guide

Integrated light guide (ILG) design improves light collection efficiency and time resolution to ensure exceptional image quality.

SiPM (Silicon Photomultiplier)

SiPM technology increases photoelectric conversion efficiency to reduce signal loss, yielding vast improvements in image quality.

Modular Design

High-level modular design achieves remarkable improvements in system reliability and serviceability.

SiPM detector

Equipped with an ILG Digital Detector
Resolution Revolution

The ILG digital detector has broken through the limits of conventional analog circuits, reducing data transmission loss and improving signal collection efficiency to provide a new level of sensitivity and resolution.

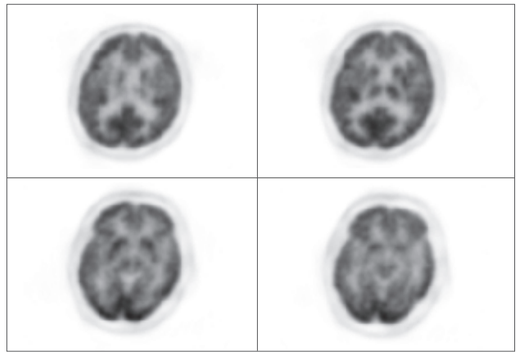
2.9 mm	16 cps/kBq	300 mm
Ultra-high NEMA resolution	Ultra-high sensitivity	Ultra-large axial FOV
Clarity	Sensitivity	Speed

2.9 mm

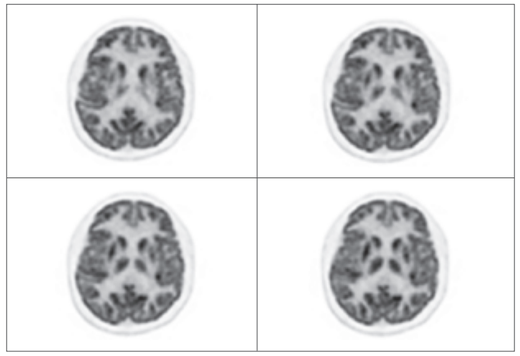
Ultra-high NEMA resolution

Clarity

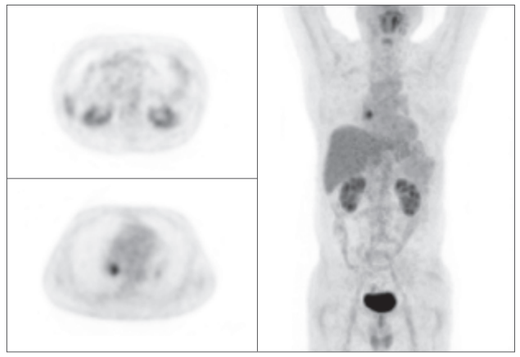
A New Benchmark



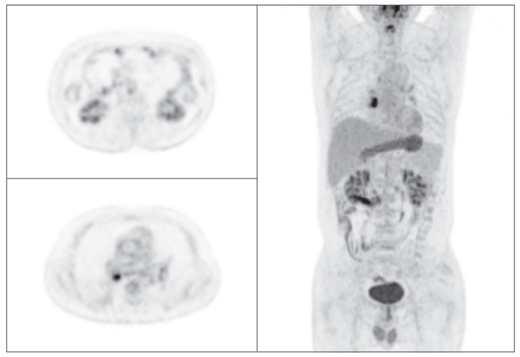
PET at Conventional Resolution



uMI 780



Conventional PET



uMI 780

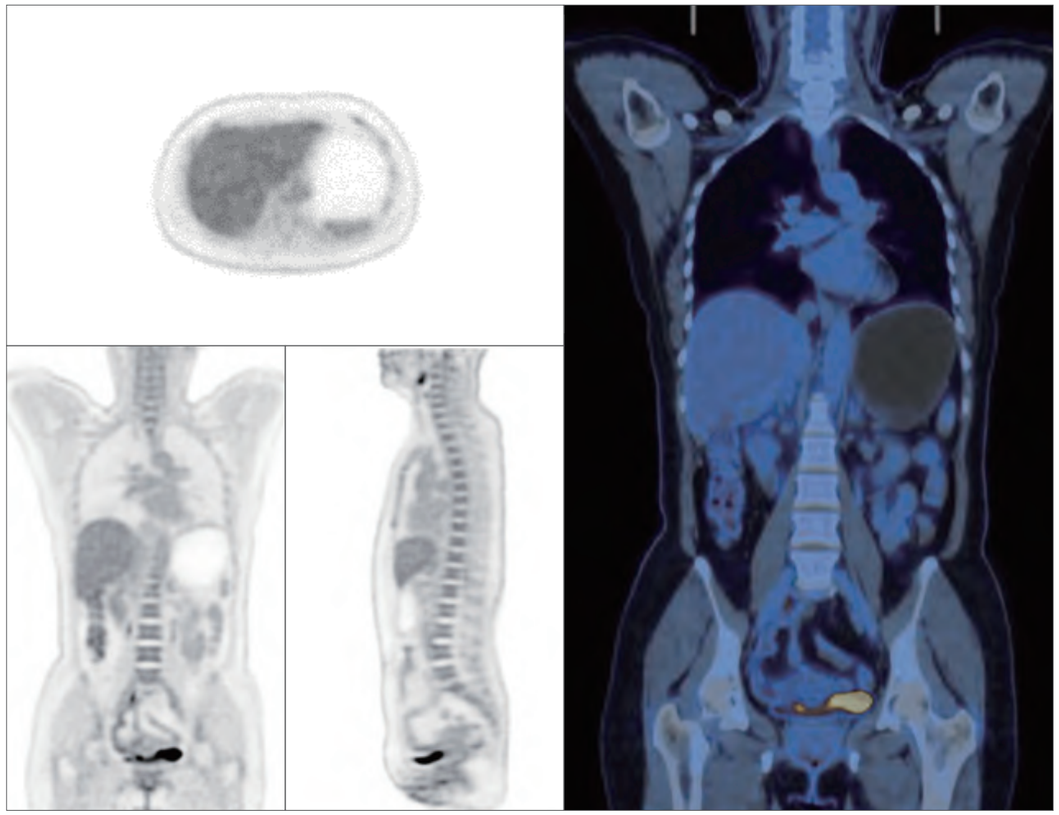
TOF+PSF reconstruction for visualization of smaller lesions;
600x600 high-definition acquisition matrix for image reconstruction with more details.

16 cps/kBq

Ultra-high sensitivity

Sensitivity

Exquisite Images Using Low Radiation Doses



^{18}F-FDG, 3mCi, BMI 21.7, 3min/bed, 3 beds

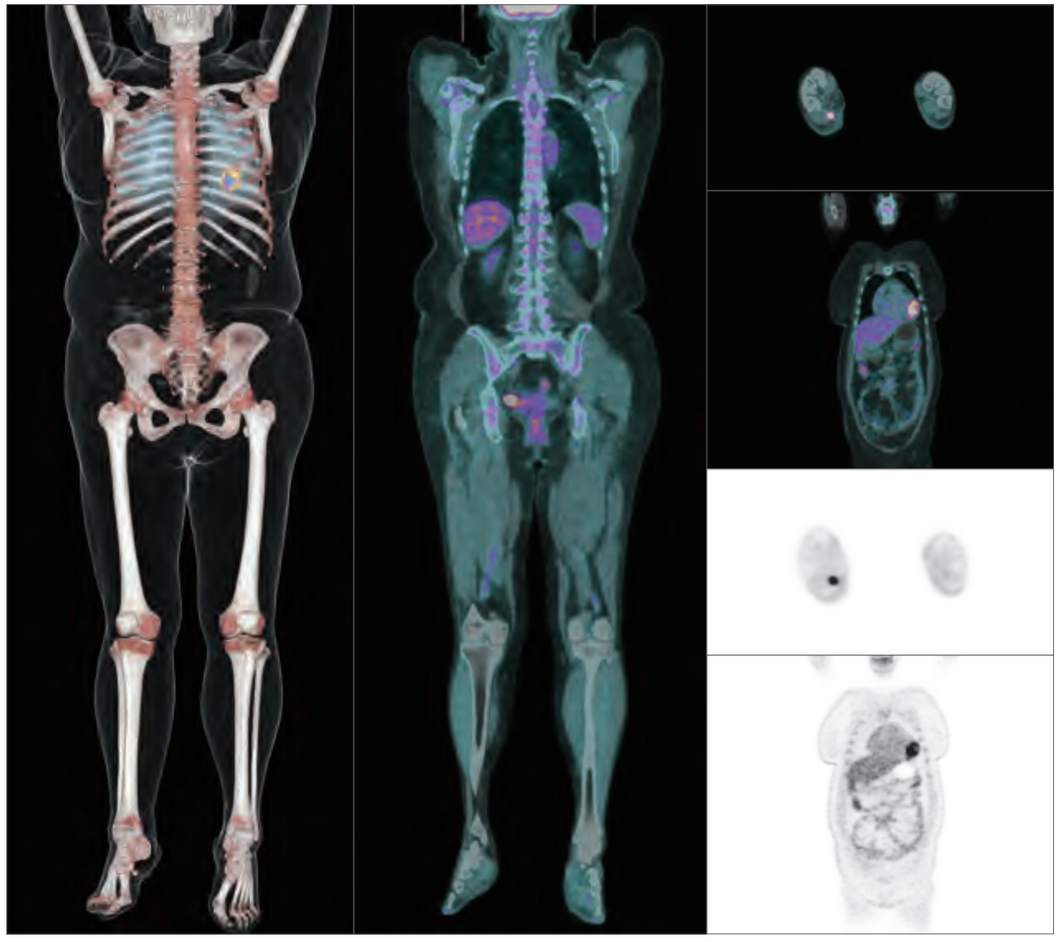
Precise crystal and SiPM coupling produces great improvements in signal collection;
Highly integrated design increases signal transmission efficiency;
Breakthroughs in sensitivity achieve clearer images with lower radiation doses.

300 mm

Ultra-large axial FOV

Speed

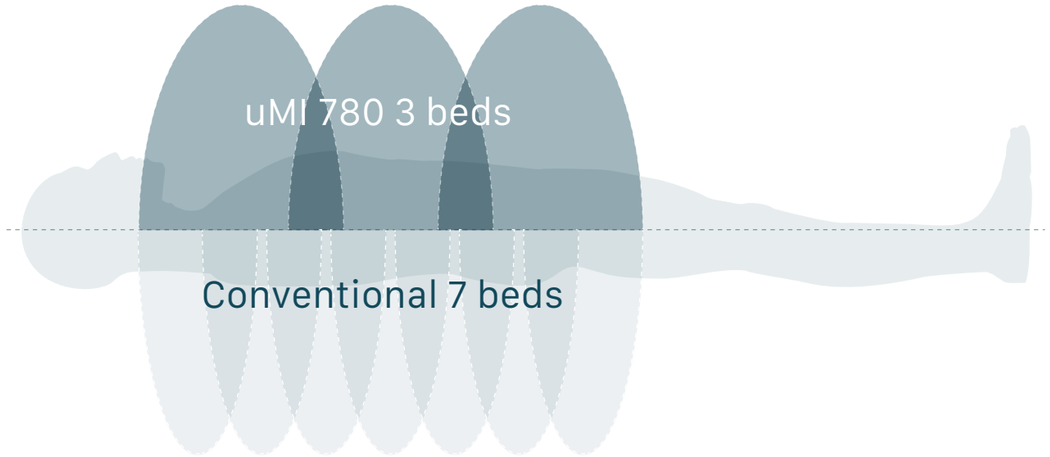
Powerful 300mm Axial FOV for Ultrafast Scans



Melanocarcinoma

3 bed positions for a whole-body scan

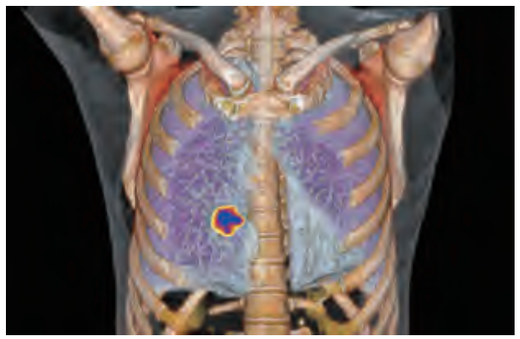
Using a powerful 300mm axial FOV, the SiPM based 112-ring PET-CT scanner can complete a whole-body scan in 3 bed positions for a fast and comfortable patient experience.



Complete High-Resolution Imaging of Organ Systems

Full Cerebrospinal Scan

Full Cerebrospinal Scan
Ultra-large 300mm axial FOV enables full organ coverage for better organ-specific studies.



Full Lung Scan

By combining the ultra-large 300mm axial FOV with digital self-gating, the uMI 780 PET-CT can provide complete and undistorted imaging coverage of the lung.

160-slice
High-performance CT

A Seamless Conversion From ‘Digits’ to Images.

Z-Detector

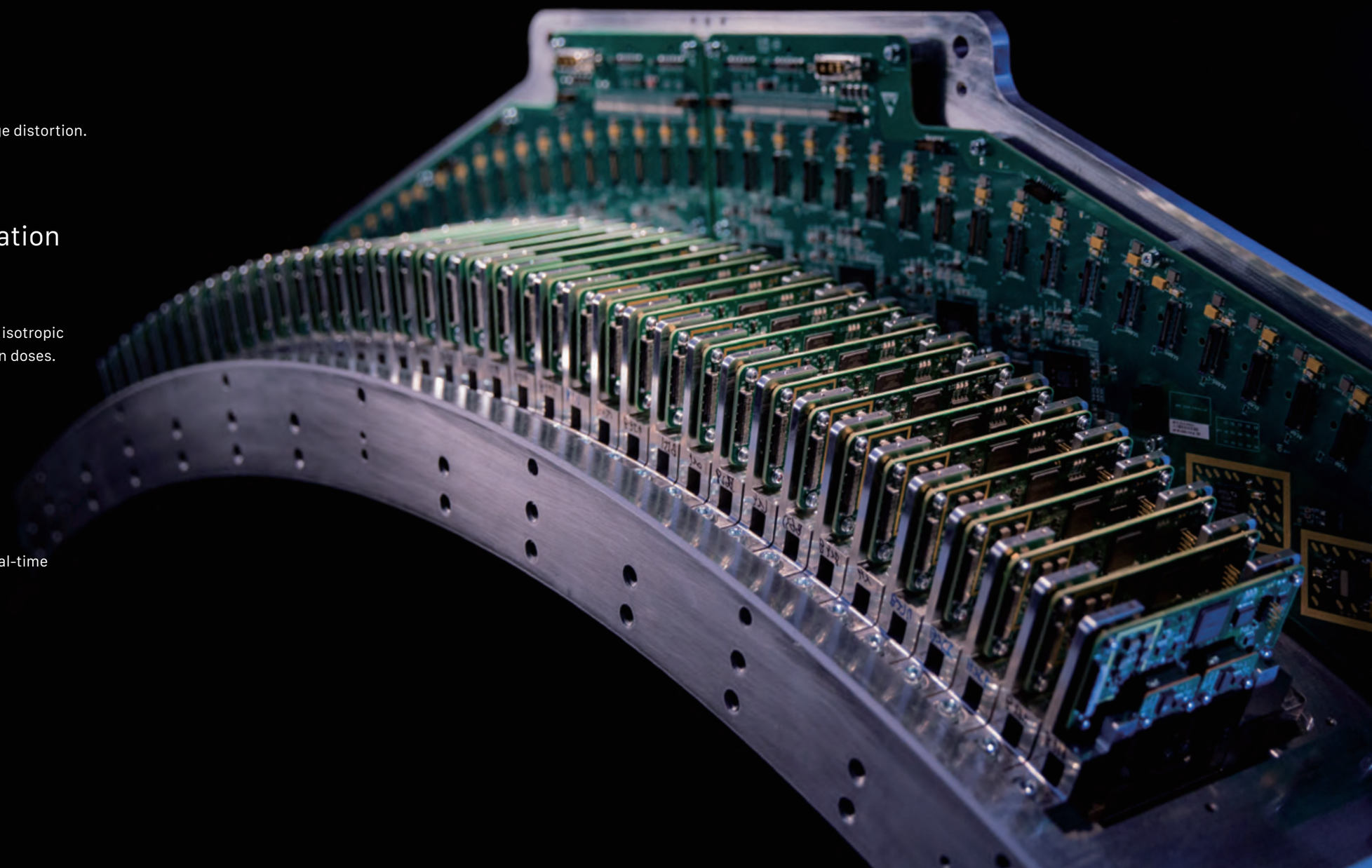
‘Zero’ data loss, ‘zero’ noise, ‘zero’ image distortion.

Fast, precise, low-radiation imaging technology

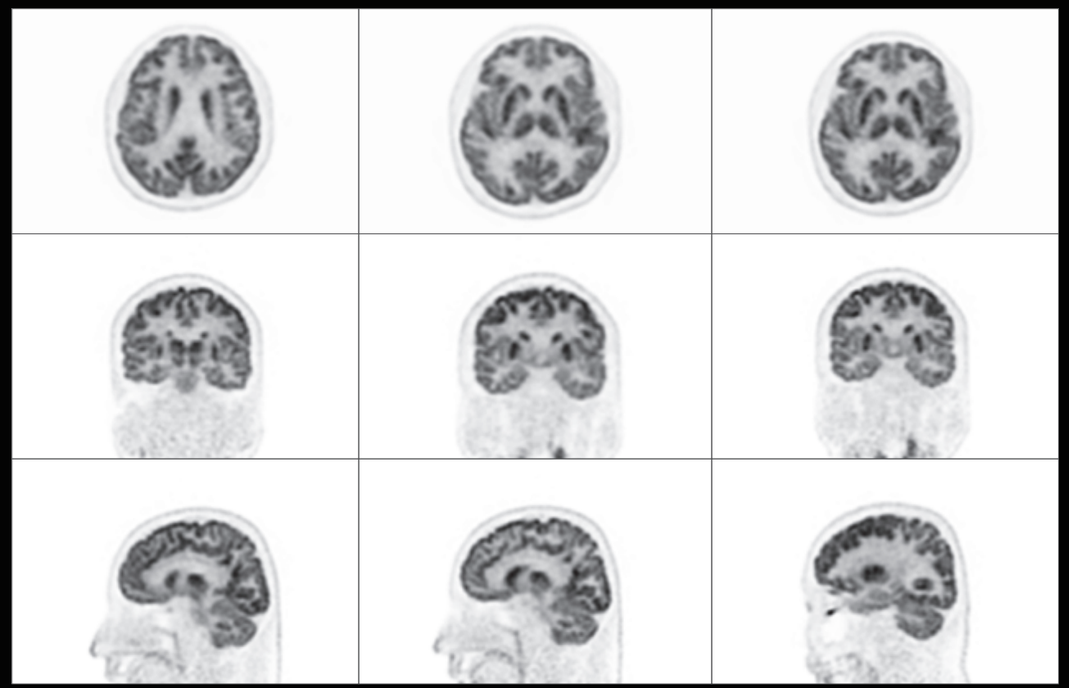
Our revolutionary design provides quick isotropic image reconstruction using low radiation doses.

Motion-freeze cardiac imaging technology

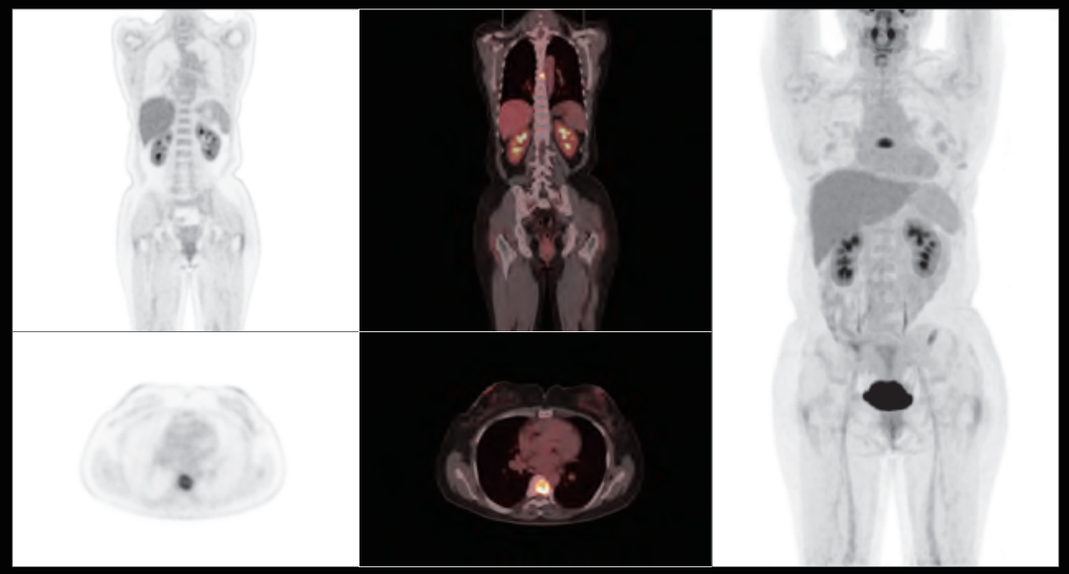
Precise acquisition of ECG signals for real-time coronary imaging.



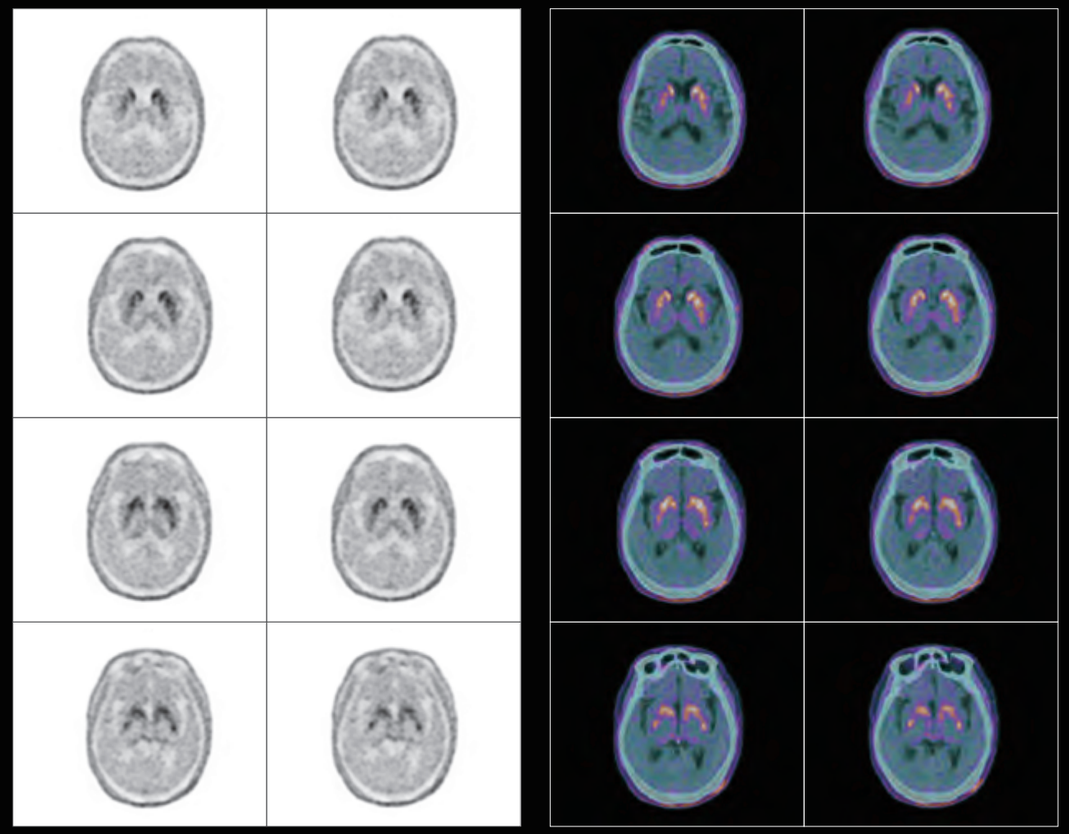
Clinical Images



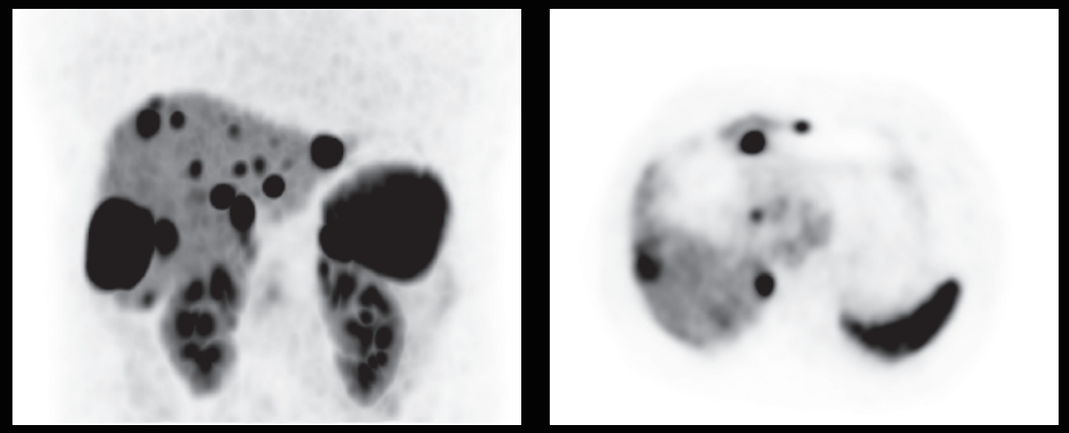
^{18}F-FDG, 7.1mCi



^{18}F-FDG, 5.8mCi



^{18}F-DOPA, 8.7mCi

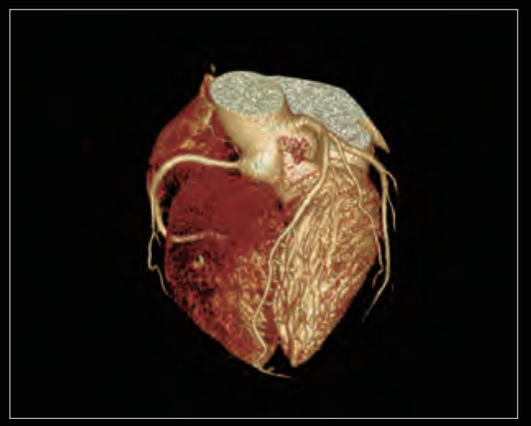


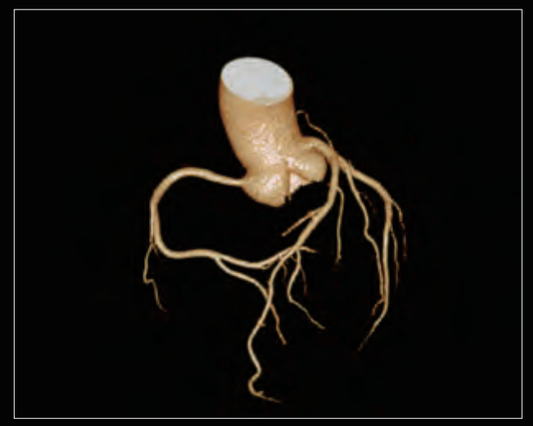
^{68}Ga-DOTA NOC, 2.7mCi

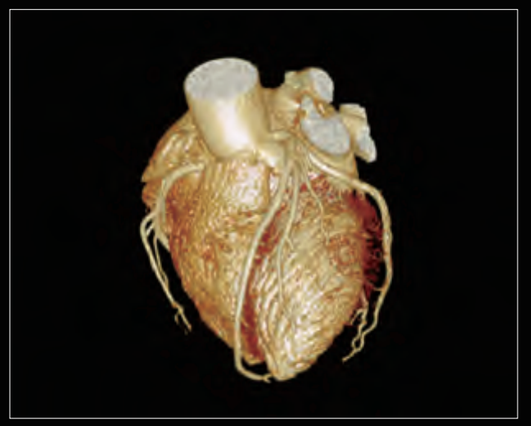
Clinical Images

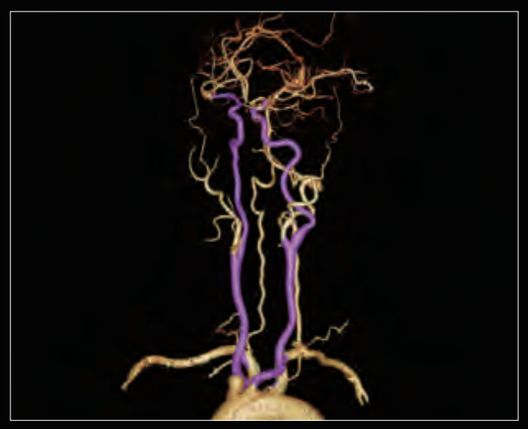
120kV, 10mA

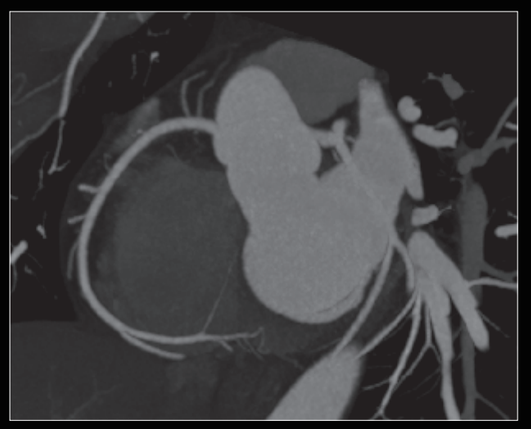
120kV, 10mA

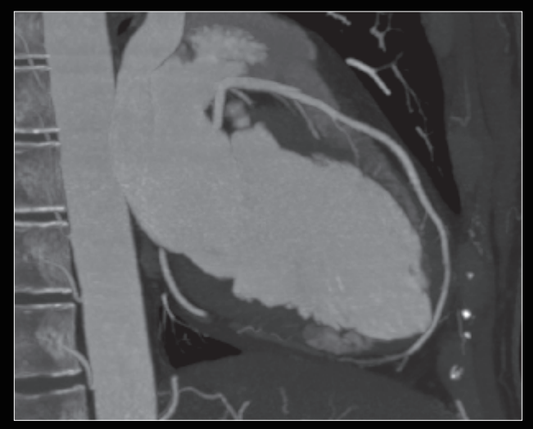










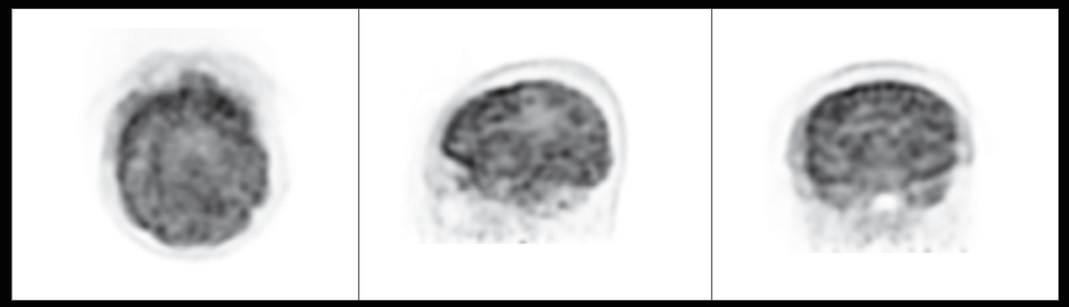


Intelligent Artifact Reduction

Anticipating your needs

Without using any external hardware, our intelligent algorithms can detect and automatically compensate for head and respiratory motion. These technologies effectively reduce motion artifacts in order to provide crystal clear images for robust clinical diagnoses.

Motion Compensation Technology

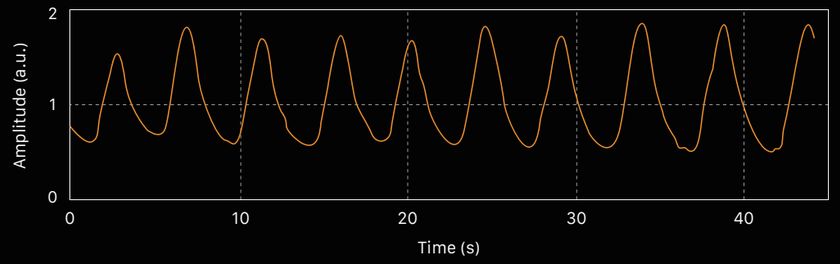


Before motion compensation

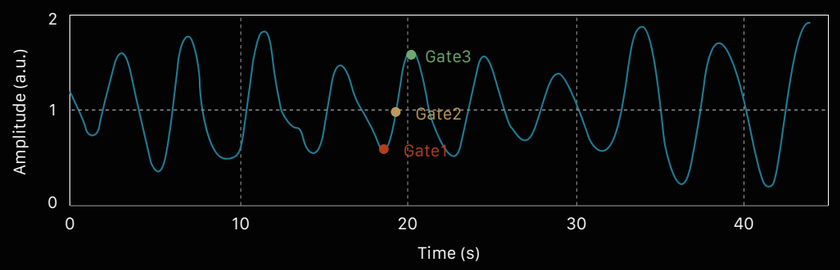
After motion compensation

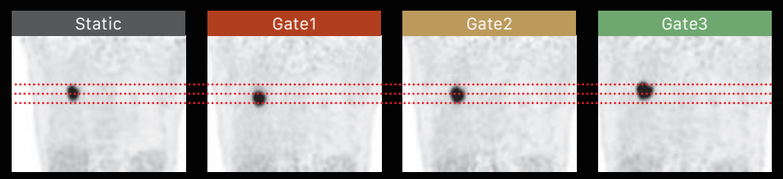
Digital Self-Gating Technology

Respiratory Curves Acquired by Hardware Gating



Respiratory Curves Generated by Digital Self Gating



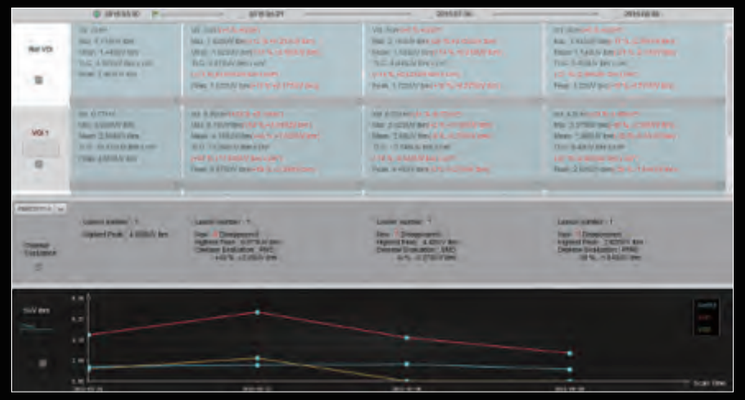


SUV_{max}: 23.52 | SUV_{max}: 22.52 | SUV_{max}: 23.31 | SUV_{max}: 21.65

Oncology Application

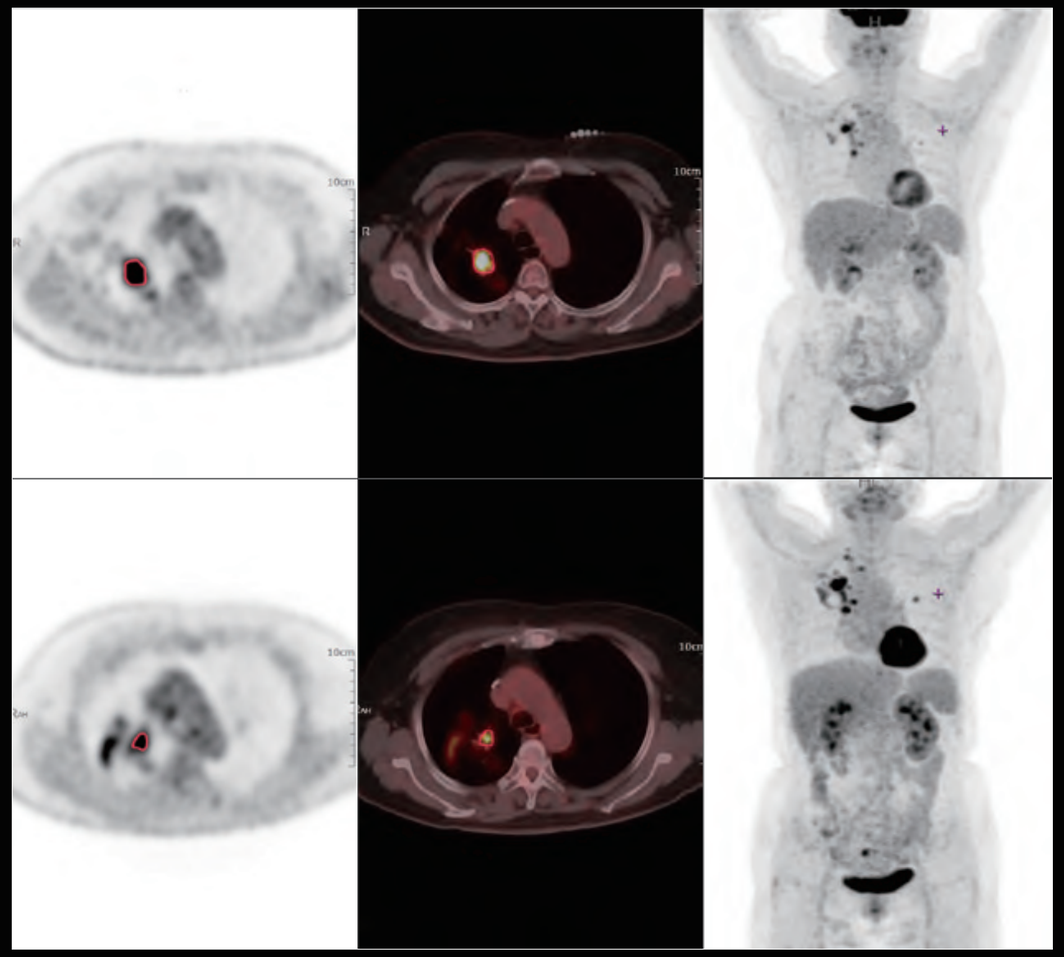
A one-stop solution for tumor diagnosis and treatment monitoring

Based on PET-CT data, the semi-automated segmentation algorithm can help measure the extent of a lesion, obtain complete statistical information about the tumor, and visualize tumor progression and treatment outcomes.



Structural reports

Evaluation of tumor treatment efficacy

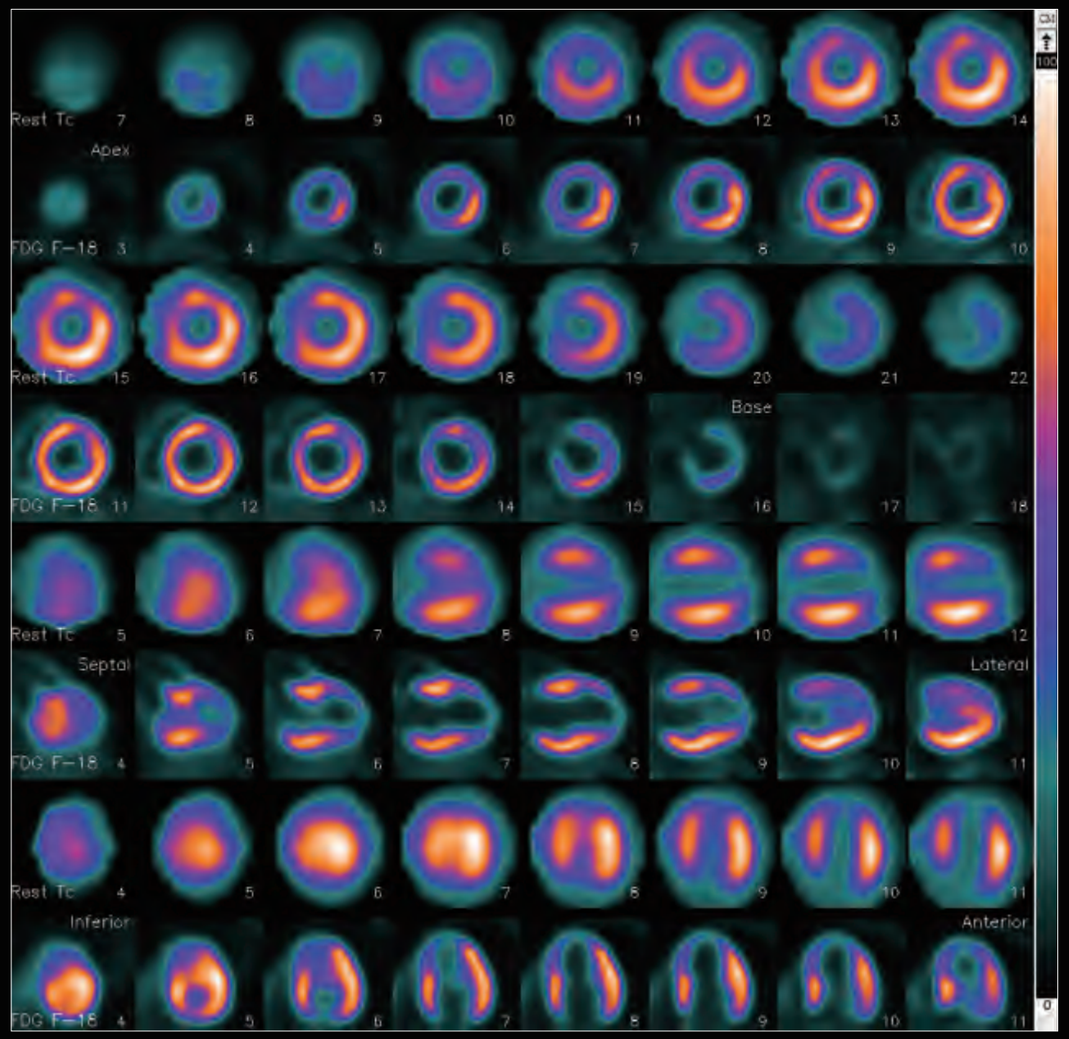


Tumor tracking at multiple time points

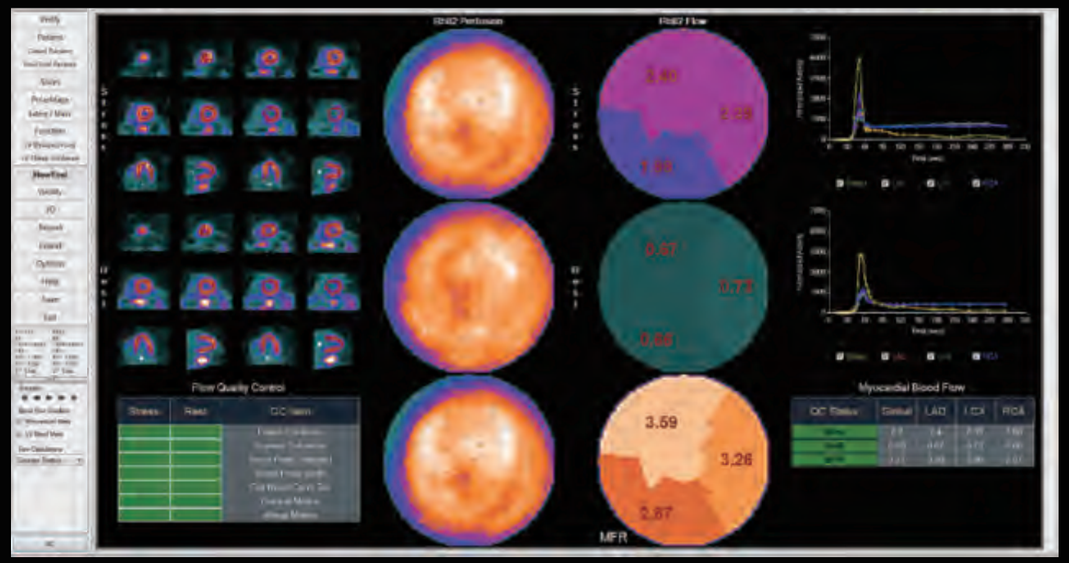
Cardiology Application

Safe, precise evaluation of cardiac diseases

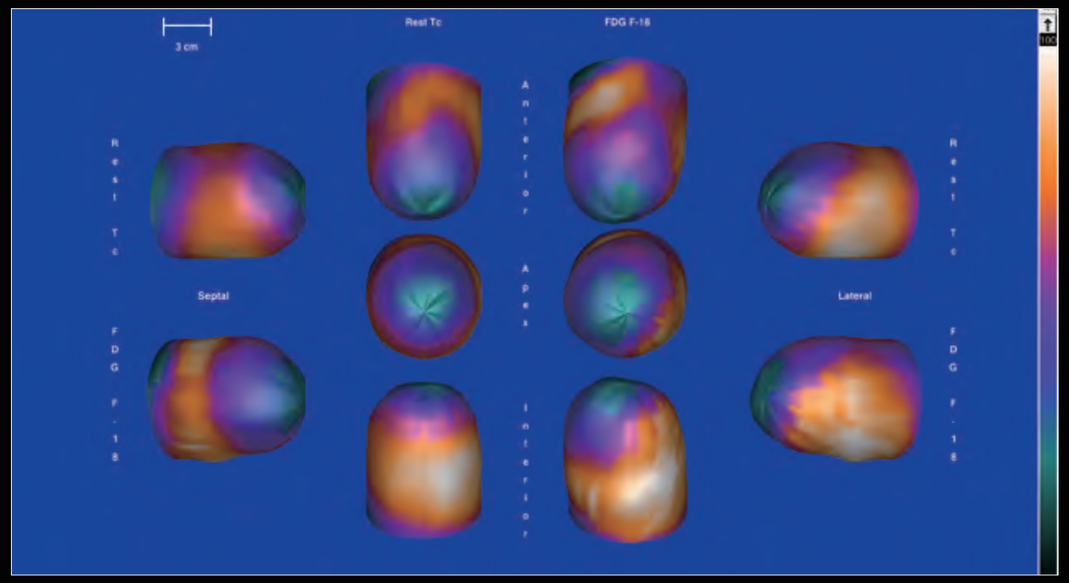
UIH's 112-ring PET-CT uses precise quantitative methods and advanced visualization to measure cardiac perfusion, viability and function to help doctors diagnose and assess cardiac diseases.



Comprehensive visualization of myocardium



Parametric analysis of myocardium

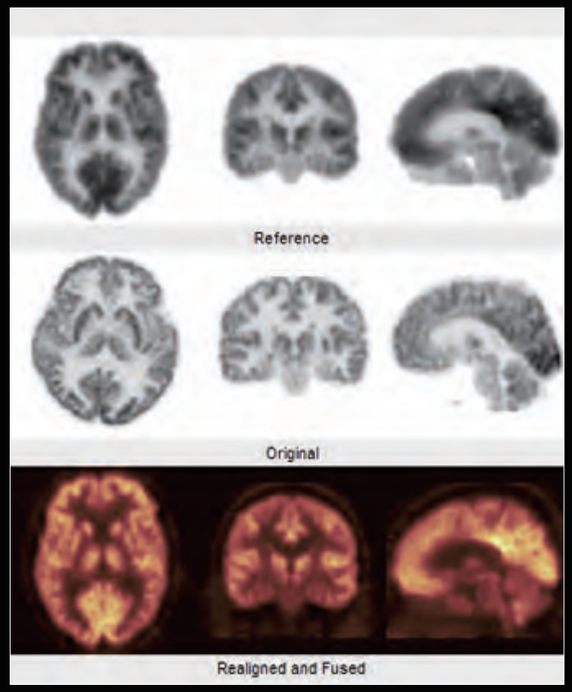


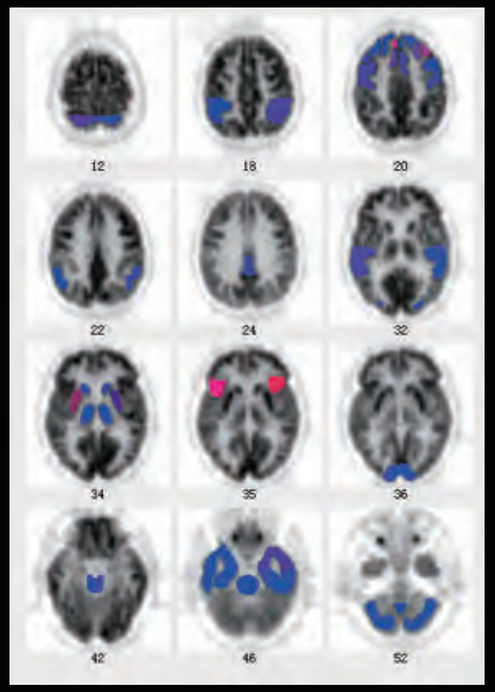
3D Visualization of myocardial defect

Neurology Application

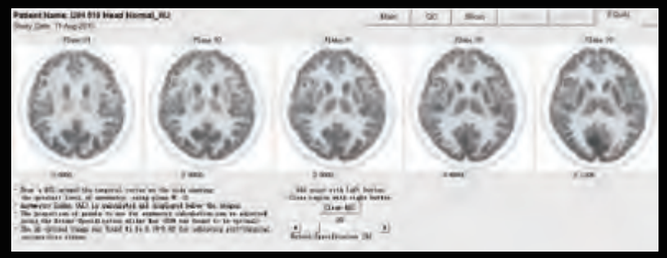
A unified solution for diagnosis of brain disorders

High-definition PET-CT brain images provide more accurate information for diagnosis of neurological diseases.

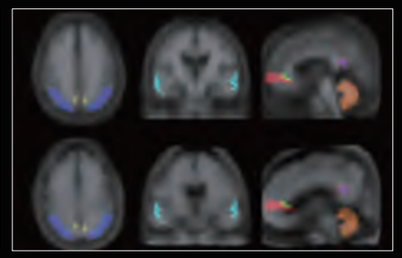




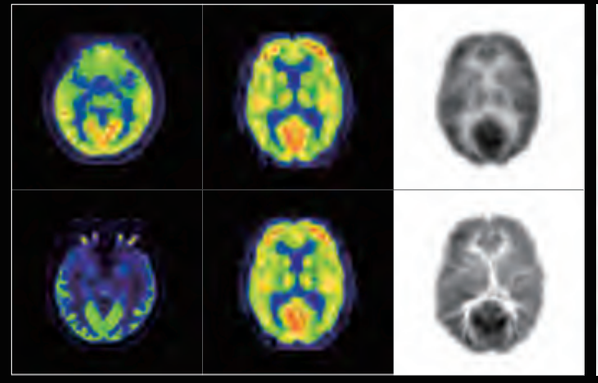
Precision technology for quality control and display of abnormal metabolic patterns

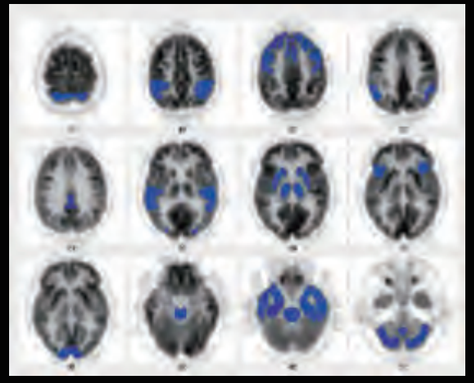


EQuAL-Preoperative evaluation of epilepsy



amyQ-Aβ images diagnose AD specifically





Compare-monitor disease progression

"User in Mind" Design

Focusing on user experience, uMI 780 combines precise operation with a lightweight and artistic design. We bring aesthetic enjoyment and ease of use to the technology, delivering care, trust and respect through our design.

Aesthetic Pleasure

Our design scheme integrates eastern aesthetics with minimalism, presenting a seamless fusion of traditional and modern styling.

User-friendly Design

Our product design ultimately aims to deliver comfort, safety, efficiency, and ease-of-use. By applying ergonomic principles, we combine innovative design with perfect functionality in order to provide the best possible user experience, optimizing patient comfort during every examination.

Sophisticated Craftsmanship

Driven by the tenets of lightweight and precision design, we fine-tune every technological detail to embody the spirit of craftsmanship in every product.

ABOUT UIH

Shanghai United Imaging Healthcare Co., Ltd. is a provider of high-end medical equipment and medical IT solutions. From our headquarters in Shanghai's Jiading district to our network of research and development centers throughout the world, our global mission is to provide medical institutions with a full-range of healthcare solutions, from diagnostic imaging and radiation therapy equipment to service, training, and medical IT. We are dedicated to expanding access to high-quality medical care and improving the value of our services.

With a passion for change and independent innovation, we always aim to meet your needs. Perceive More. Provide More. Access More. We Have A Passion for Change.

UNITED IMAGING

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