



Advancing precision and innovation: Kyushu University's journey with the Biograph Vision PET/CT platform

Kyushu University



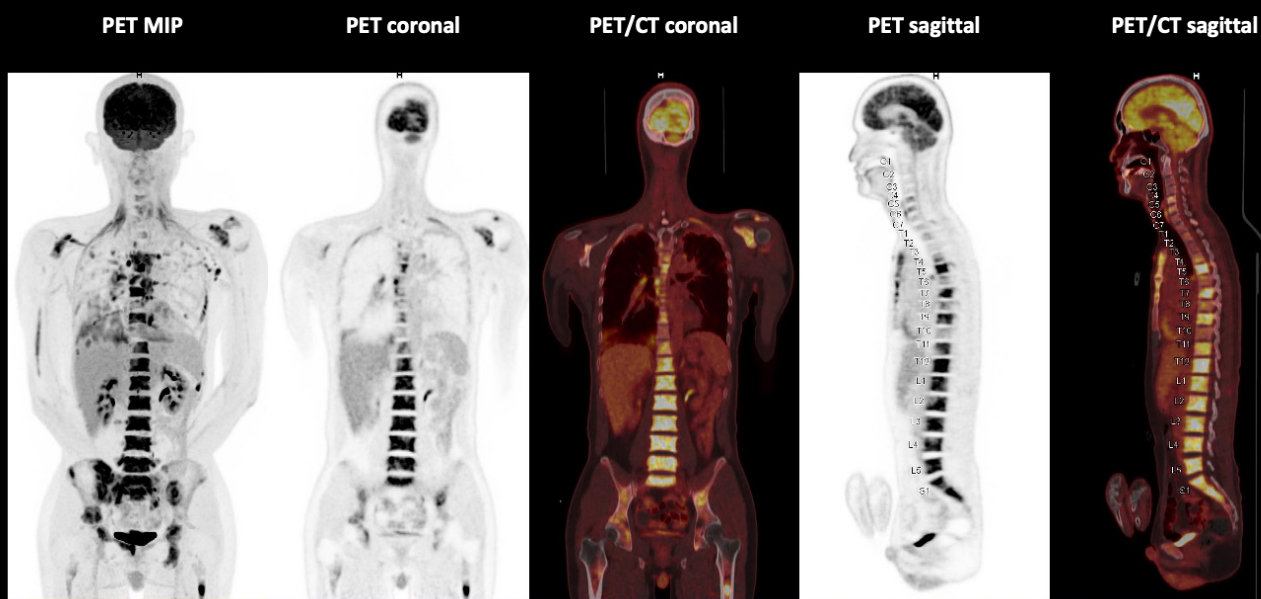
Kyushu University, a prestigious academic medical institution in Fukuoka, Japan, is widely respected for its pioneering contributions to nuclear medicine and its excellence in advanced research. As a leader in academic healthcare, Kyushu University strives to integrate the latest technology to support education, research, and high-quality patient care.

For over five years, the university's PET/CT team relied on its Biograph Vision 600 system, which consistently

delivered exceptional image quality and impressive sensitivity.

This performance enabled clinicians to confidently detect even the smallest lesions and provide enhanced patient care.

Looking to advance its PET/CT capabilities and innovation leadership to the next level, Kyushu University made the decision to upgrade its Biograph Vision 600 to Biograph Vision.X, which features industry-leading 178-picosecond (ps) time-of-flight (TOF) performance.¹



Sharp lesion definition and high lesion contrast reflect the 178-ps ultra-fast TOF performance and high spatial resolution of Biograph Vision.X PET/CT. Data courtesy of Kyushu University Hospital, Fukuoka, Japan.

*"The image quality is very good.
The Biograph Vision.X system
detects even smaller lesions."*



Takuro Isoda, MD, PhD
Associate professor
Division of Radiology
Kyushu University Hospital
Fukuoka, Japan

Fit Upgrade to Biograph Vision.X

The upgrade process was fast and efficient, involving only detector replacement. The common user interface allowed for a seamless transition and minimal user training. As a result, the team was able to resume patient scanning with limited downtime.

Independent NEMA testing further reinforced their choice, demonstrating a 16.6% improvement in 10-mm hot-sphere contrast recovery and a reduction in average lung errors from 2.96% to 0.95%, driven by superior TOF temporal resolution.



16.6%

improvement in
10-mm hot-sphere
contrast recovery

2.96%



0.95%

reduction in
average lung
errors

"We went for the world's best."

Takuro Isoda, MD, PhD
Associate professor
Division of Radiology
Kyushu University Hospital
Fukuoka, Japan



*"The upgrade process
was very fast."*

Yasuo Yamashita, PhD
Lead radiological technologist
Division of Radiology
Kyushu University Hospital
Fukuoka, Japan



“Our old protocol was about 3 min/bed, and now it is reduced to 2 min/bed.”

Yasuo Yamashita, PhD
Lead radiological technologist
Division of Radiology
Kyushu University Hospital
Fukuoka, Japan

As part of the broader technology refresh, OncoFreeze AI—implemented with the upgrade—provided simpler, more consistent motion correction and boosted efficiency.

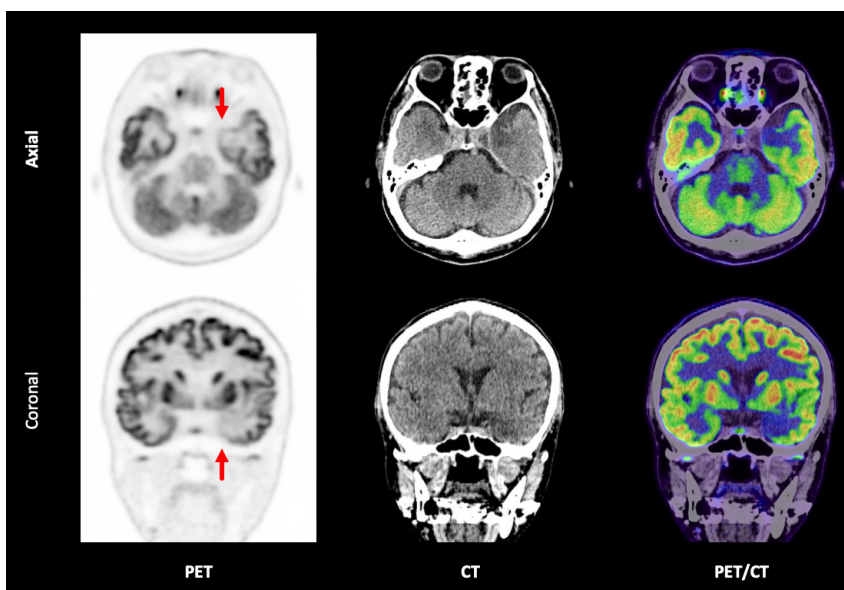
Clinically, Biograph Vision.X maintains the strong performance of its predecessor while enabling faster scan times—reducing from three minutes to two minutes per bed position—and preserving diagnostic confidence.

The upgraded system produces high-quality imaging even with reduced doses, providing reassurance during radiotracer shortages or when working with short-lived isotopes such as ^{11}C -methionine.

Biograph Vision.X’s improved tissue depiction—for example, reveals more realistic variegated liver patterns—providing clinicians with a truer picture of human physiology.

Beyond daily clinical excellence, Kyushu University leverages Biograph Vision.X to drive academic research in areas such as amyloid imaging and prostate cancer recurrence using PSMA PET, taking advantage of the system’s advanced sensitivity and resolution to detect lesions that might otherwise go unseen.

Seamlessly upgrading from Biograph Vision 600 to Biograph Vision.X enabled Kyushu University to advance its clinical and research efforts as well as solidified its leadership role in providing cutting-edge patient care.



Sharp definition of medial temporal hypometabolism reflects ultra-fast 178-ps TOF performance of Biograph Vision.X PET/CT.

Data courtesy of Kyushu University Hospital, Fukuoka, Japan.

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Biograph Vision/Vision.X PET/CT is not available in all countries. Future availability cannot be guaranteed.

¹ Based on competitive literature available at time of publication. Data on file.

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