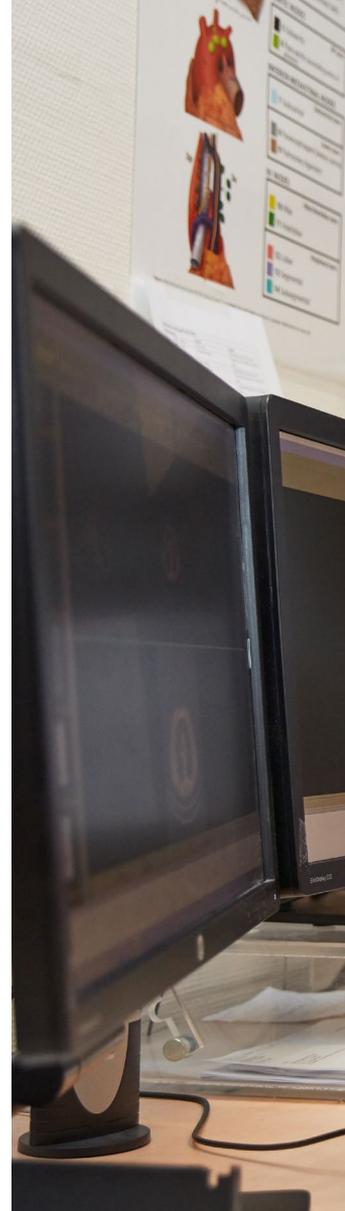


# Precision at the molecular level

In molecular imaging, the smallest details can make a significant difference when it comes to reporting, sharing, and reading studies. By equipping their nuclear medicine and molecular imaging department with state-of-the-art equipment and a revolutionary reading solution, Instituut Verbeeten in the Netherlands aims to deliver accurate and efficient medical care.

By Erika Claessens | Photography by Miquel Gonzalez



Instituut Verbeeten is a center for nuclear medicine and radiotherapy, linked to the ETZ Elisabeth-Twee Steden Hospital in Tilburg,” says Arjan B. van Dijk, MD, a nuclear physician at the Instituut Verbeeten. Since 2003, van Dijk has been responsible for PET/CT imaging at the institute.

“With radiotherapy offices in Tilburg, Breda, and Den Bosch, our institute is widely known as a center of excellence in the south of the Netherlands, with our nuclear medicine and molecular imaging department situated in Tilburg. We realized that in order to deliver accurate and detailed medical images, we



needed the right tools for reading, interpreting, and sharing PET and SPECT studies. And, as we play an important role in the regional healthcare industry, our executive board and management team have always looked years ahead when equipping the nuclear medicine and molecular imaging department.”

### Looking ahead

“Looking ahead is critical because things move extremely fast in nuclear medicine,” adds Jeroen De Jong, MD, nuclear physician and medical manager of the nuclear medicine department. “When I started my career at Instituut Verbeeten, our de-

*“By equipping our nuclear medicine and molecular imaging department with a comprehensive reading solution, we can continue to deliver the best healthcare possible in the south of the Netherlands.”*

Arjan van Dijk, MD, Instituut Verbeeten

partment already had a Symbia™ T2 SPECT/CT along with an Orbiter single-head gamma camera. Even back then, we used dedicated software to integrate all images from various departments and neighboring hospitals into one platform across all workstations.”



Arjan B. Van Dijk (left) and Jeroen De Jong proudly stand in front of their department's state-of-the-art PET/CT scanner, Biograph Vision.

When looking to add the next generation of PET/CT technology to their enterprise, van Dijk's eye fell on Biograph Vision™ 600, which was installed at the Tilburg site in November 2018. "Keeping at the cutting edge of technology can dramatically improve how we work," van Dijk continues. The institute can now serve 2,200 patients annually with their newest PET/CT addition, while around 5,000 patients per year are imaged via their two SPECT/CT systems.

### One application for all

"With the new device, we also needed a comprehensive reading solution, so we chose the *syngo*®.via multiuser application. We simply love the way this application works," van Dijk states. "It allows images from our latest-generation PET/CT system to be easily and efficiently read by a multidisciplinary team spread across different locations. The images are automatically prepared, digitized, and processed on a unique client/server platform no matter where the workstation is situated." He adds that when the patient data transfers from the scanner to the reading solution, the images are automatically added to the patient's folder and ready to view.

### Virtual collaboration

"Furthermore, it is important to know that our picture archiving and communication system (PACS) differs from other hospital PACS. Thus, we need to be very flexible, and the *syngo*.via reading solution is of great help in supporting our processes," explains van Dijk. According to van Dijk, most of the multidisciplinary team meetings are now held virtually with video conferencing, while patient studies and reports are projected on a large screen. "With the virtual *syngo*.via server we can add a patient's previous scans and share the images with all participating members. And other information, such as a past gastric-emptying study, can be easily uploaded from a CD-ROM and integrated into the platform." The reading solution is also equipped with a Findings Navigator, which automatically stores and displays previous findings. This solution can shorten the time needed to compare pre- and post-therapy exams, a feature which van Dijk warmly welcomes.

### Layouts improve quality

For De Jong, viewing images in the reading solution layout makes all the difference. "It's a huge step forward," he states. "Pre-fetching the digitalized images from a patient's history, even when these are made in another hospital, is instant and effortless. And comparing studies can be done in next-to-no time." Choosing a specific layout instead of a standard one is another advantage of the reading solution, according to De Jong. "I can easily adjust image saturation to highlight the patient's follow-up scan. By scaling it myself, I can immediately detect if a patient is reacting positively to a treatment."

### An eye opener

Learning how to incorporate the robust reading solution into his established working method took time, De Jong admits, "but now I only see the advantages." With the elimination of many manual pre-processing steps, the workflow is more efficient. "The adaptability of the layout is certainly a plus. If I am not satisfied with an image, I can still correct it manually. The images are our end product and if we can highlight the key details at a molecular level, it increases their value." Van Dijk and De Jong are proud of the outstanding image quality they are able to deliver. Before, when they attended multidisciplinary meetings, they only had a



The architecture and design within Instituut Verbeeten mirror the institute's healing-environment philosophy.

laptop with them and, as the image could not be scaled and the quality was not always perfect, there was little room for discussion around diagnosis.

"syngo.via has been an eye-opener to me," De Jong emphasizes. "We are proud to show the high-quality images it produces. Why would we have a state-of-the-art, high-resolution scanning device like Biograph Vision if we didn't also have a comprehensive reading solution that brings precision to our images."

## Motivation and ambition

Arjan van Dijk agrees. He says the dedication to precision and patient care is likewise reflected in the healing-environment philosophy of Instituut Verbeeten, where it is believed architecture and design contribute to patient health. Instituut Verbeeten's excitement to utilize the latest generation of technology mirrors this philosophy. "Our patients and staff must feel and experience our motivation and ambition. By equipping our nuclear medicine and molecular imaging department with a comprehensive reading solution, we can continue to deliver the best healthcare possible in the south of the Netherlands." ●



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The statements by Siemens Healthineers customers described herein are based on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.

Biograph Vision is not commercially available in some countries. Due to regulatory reasons, its future availability cannot be guaranteed. Please contact your local Siemens organization for further details.