







## THE WORLD'S MOST ADVANCED DYNAMIC VOLUME JUST GOT EVEN BETTER

Introducing the Aquilion ONE™ /VISION Edition — Providing robust clinical solutions for your patients when you need them most.

Aquilion ONE /VISION enables successful examination of all patients, with the lowest exposure doses and the highest quality diagnostic outcomes. — FIRST THING





Prof. Mathias Prokop

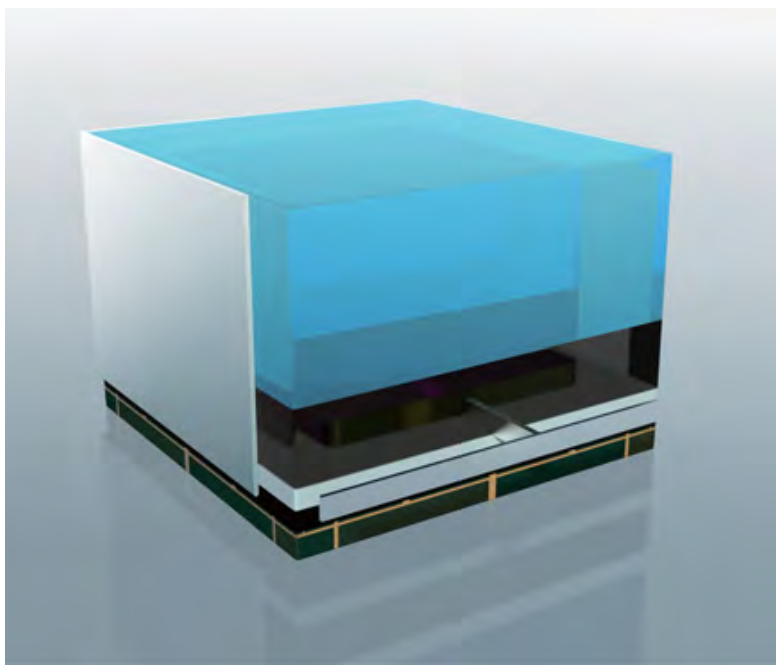
Radboud University Nijmegen Medical Centre,  
Netherlands

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The Aquilion ONE ViSION CT is our radiology workhorse, our CT for advanced perfusion applications and also provides a source of excitement and endless possibilities for our researchers.

The technology in this system is quite remarkable. Dose reduction is fully integrated with AI, which takes all the guesswork out of using advanced iterative reconstruction algorithms. The Quantum Vi detector is able to routinely scan at 0.275 second scan speeds and provides excellent motion-free images. We now employ this rotation speed for the majority of our examinations. In addition, the 16 cm wide coverage allows dynamic perfusion examinations to be performed in a clinical setting for a variety of clinical presentations, offering real clinical benefits in vascular and oncologic applications.





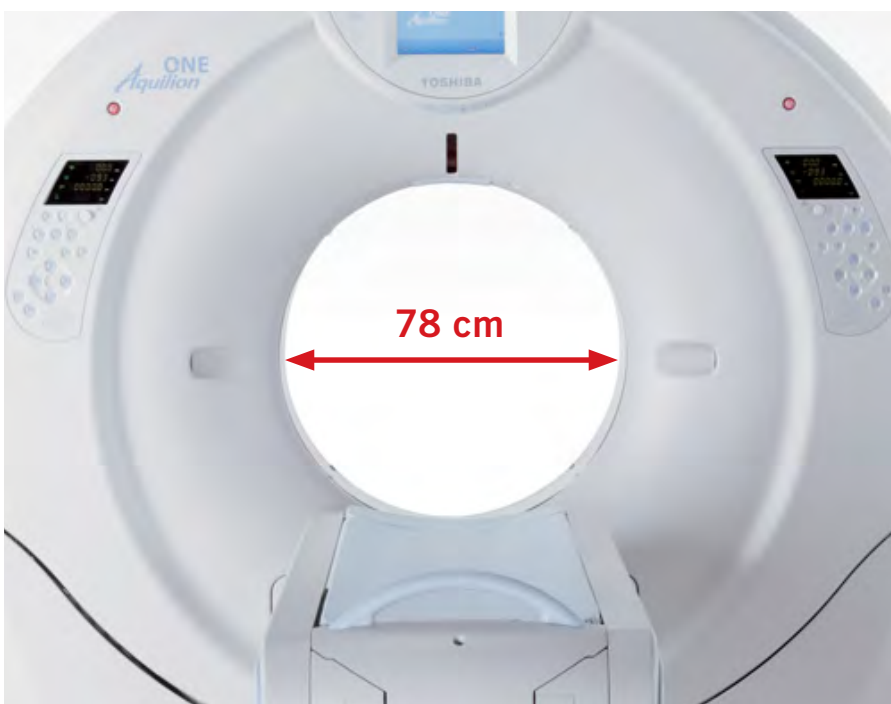
## The Quantum Vi Detec

The newly developed Quantum Vi detector provides 25% more patient coverage per rotation for ultrafast CT acquisitions.

Through a proprietary Toshiba manufacturing process, the detector is machined to machine the industry's thinnest detector, providing the best possible spatial resolution for CT imaging.

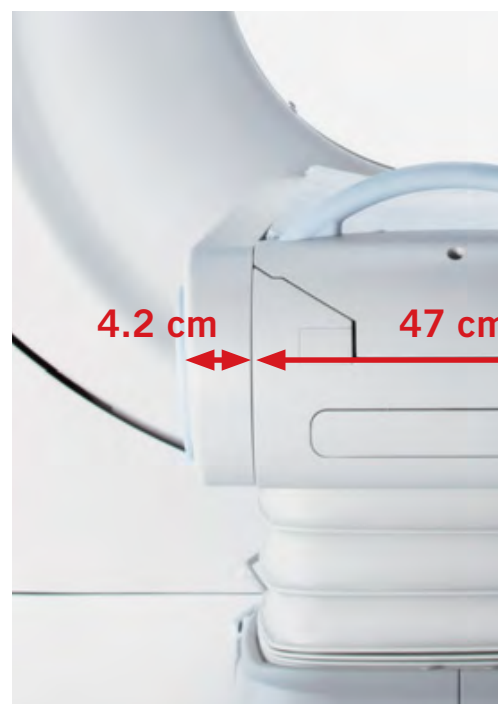
The Quantum Vi delivers a photon-to-electron conversion efficiency that is 25% more efficient than other detectors. Its afterglow is reduced to mathematically negligible levels, providing artifact-free images with fewer artifacts. Advanced DAS design and innovative signal processing technology eliminate unwanted electrical noise. Data is transferred at a rate of 25 Gb per second, ensuring preservation of signal integrity and high image quality.





### ONE Gantry

A wide, 78 cm open bore ensures that even the largest patients will remain at ease during scanning. This design also offers superior patient access for physicians during interventional procedures.



### ONE Table

Tech Assist Lateral Slide\* is another technologist unparalleled ease in position and physical strain.





## Emergency ONE

Aquilion ONE *VISION* is perfectly designed for the emergency department, where minimizing risk and maximizing health outcomes of patients at risk is critical.

- Routine 0.275 second scan speed
- InstaView reconstruction
- Angled helical scans
- Tech Assist Lateral Slide\* table movement and 78 cm large bore



## Pediatric ONE

Instant one-shot acquisition, a totally new way of scanning, can dramatically reduce the need for patient sedation, while simultaneously improving image quality and lowering the exposure dose in children of all ages.

- Handy Snap\* in-room start switch
- Fast 0.275 second volumetric scanning
- Dedicated pediatric protocols
- Integrated AIDR 3D for safety

\*Option



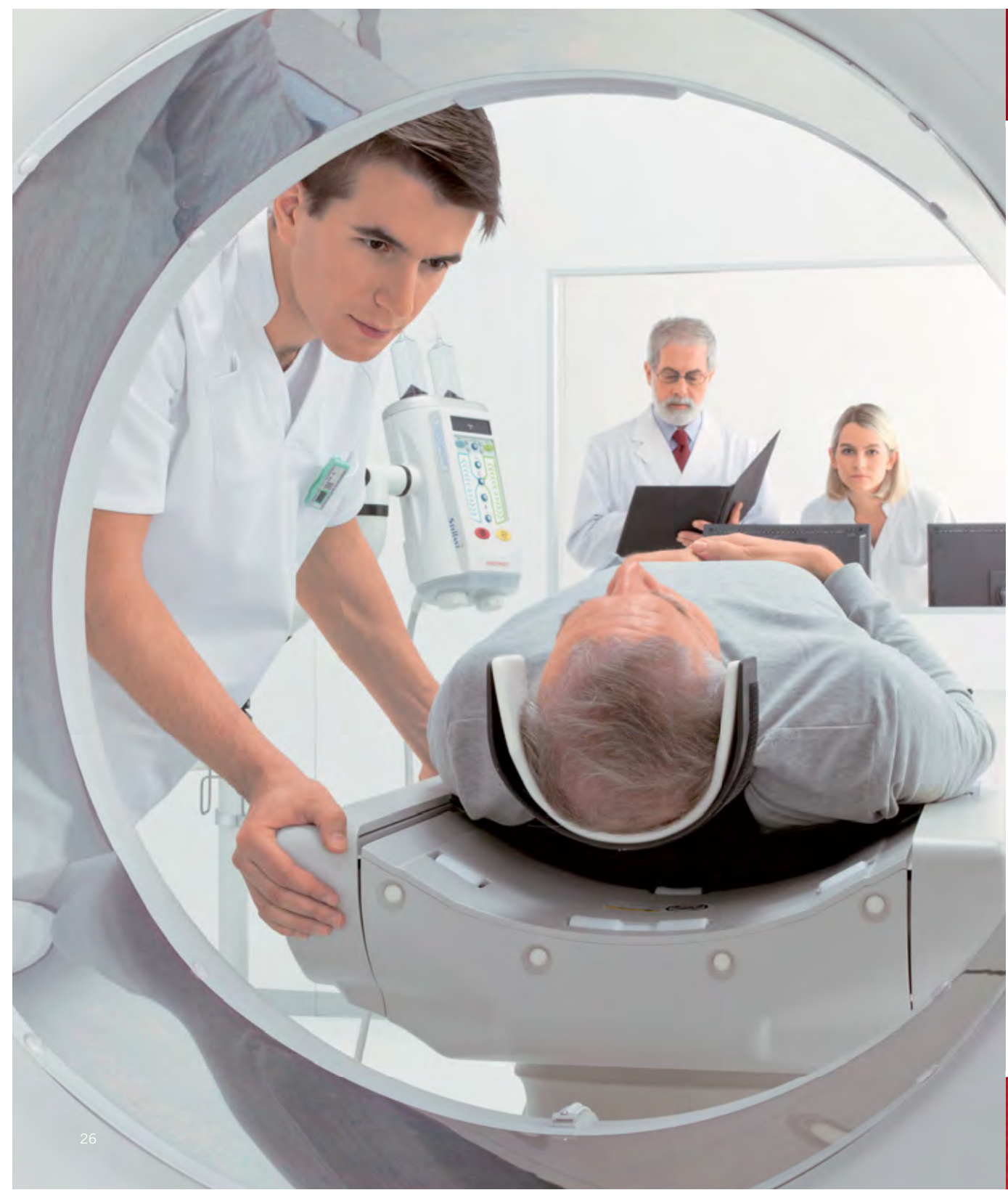
## Cardio ONE

Capture the whole heart in one rotation and the whole story in one study. The Aquilion ONE *VISION* with volumetric 0.275 second scan speed delivers robust low-dose imaging for all your patients and for all heart rates.

- Capture the entire heart with one 0.275 second rotation
- Intelligent Arrhythmia Rejection
- Routine low-dose imaging with integrated AIDR 3D
- One-shot myocardial perfusion\* validated by CORE320

\*Option





From routine static imaging to dynamic imaging of blood flow in the brain.

- ONE low-cost solution
- Whole-brain coverage
- Whole-brain perfusion
- Diagnosis of stroke



## Interventional ONE

Volumetric 3D and 2D realtime CT fluoroscopy\* allows the most difficult interventional procedures to be performed with greater ease and improved safety for you and your patients.

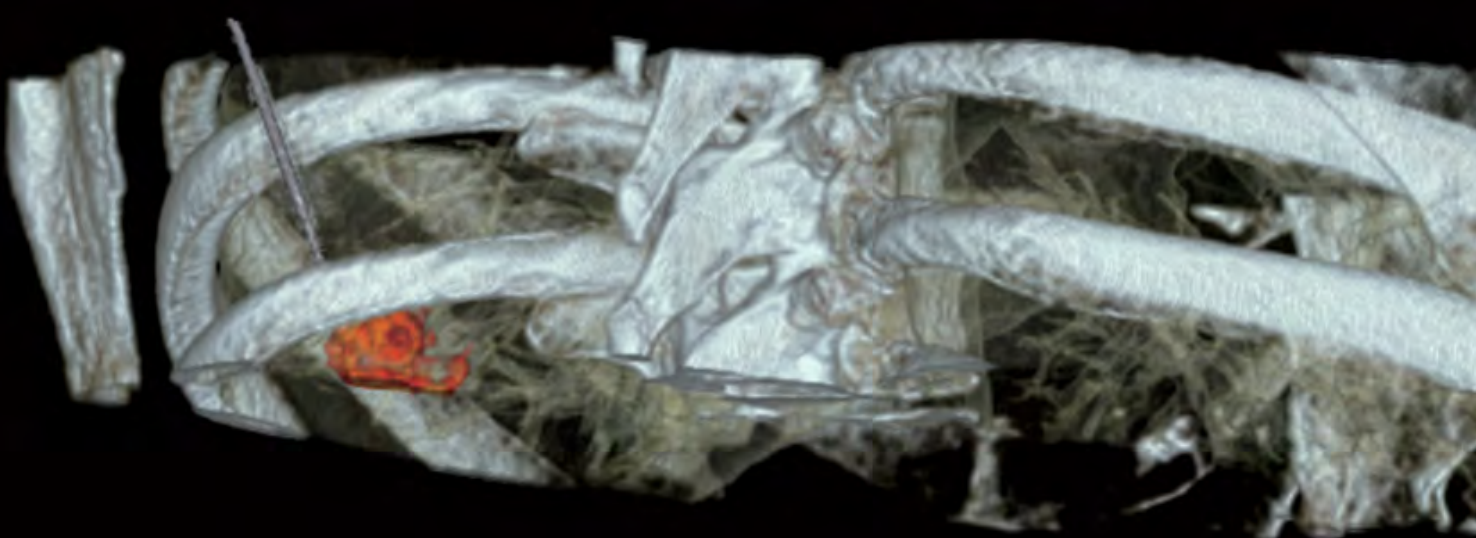
- Realtime display to monitor needle placement as it happens
- Dedicated biopsy planning tools
- Oblique and double oblique needle tracking in 3D fluoroscopy
- Integrated AIDR 3D for 3D fluoroscopy, ensuring lower exposure doses



## Respiratory ON

Low-dose dynamic acquisition during functional assessment for a variety of scanning without table motion eliminating triggering devices.

- Dynamic upper airway for dysfunction
- Dynamic lower airway for tracheomalacia
- Dynamic lung for air trapping
- Dynamic lung tumor motion for staging





## Reconstruction Speed

Powerful reconstruction architecture delivers a maximum rate of 50 images per second, permitting the routine use of iterative reconstruction technology (AIDR 3D) in any fast-paced environment.

## InstaView

Introduced in 2004, Toshiba was the first manufacturer to deliver realtime image reconstruction. Second-generation Rapid InstaView technology now provides near-instant display and review with full-matrix images. High-quality realtime image review is perfectly suited for emergency patients, where every second to diagnosis counts.

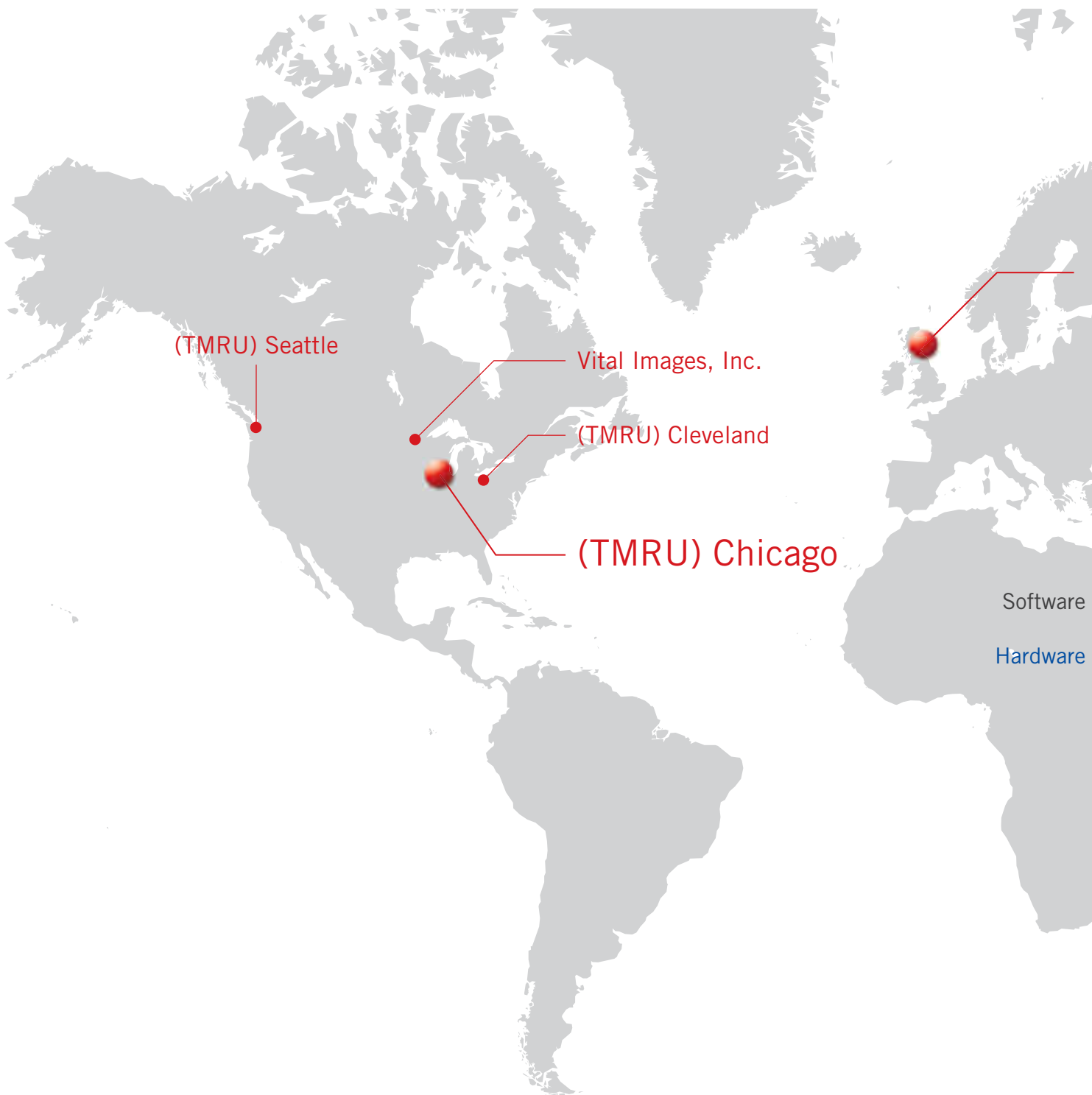
## Multiview

Multiview allows all reconstruction parameters to be programmed into every examination protocol. Sagittal reconstructions are performed with a single mouse click. Even rendering options can be automatically generated, expediting workflow from the scan and go!

## Hybrid View

Save time and storage space with Toshiba's new Hybrid View kernels. These newly introduced iterative kernels provide sharp detail of the lungs and mediastinum in one image. Reading times are shortened, allowing you to concentrate on a single series to make

Visit [www.aquilionvision.com](http://www.aquilionvision.com) to view in motion



## SURE<sup>RE</sup>Subtraction

With pixel-perfect subtraction of bone and calcium, SURE<sup>RE</sup>Subtraction\* software provides unsurpassed visualization of vessels and contrast-enhanced tissue structures, providing all the information you need to make a confident diagnosis in the shortest time.

\*Option



**Dr. Ruben Sebben**

Consultant Radiologist,  
The Queen Elizabeth Hospital, Adelaide, Australia

This deformable subtraction algorithm provides a highly accurate CT DSA examination of routine carotid CTA studies, dramatically reducing the time required for image interpretation. In addition, the presentation of these subtracted images is greatly favored by referring clinicians.

This is truly game changing technology, and a remarkable development.



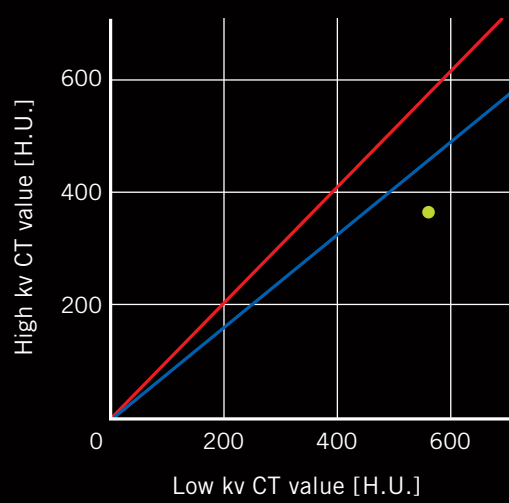
Low kV



High kV



Uric Acid  $Y = 1.02 X + 0.00$   
CaCO<sub>3</sub>  $Y = 0.82 X + 0.00$





## Perfusion\*

Transform your diagnosis  
to physiological diagnosis  
effortlessly with low-dose

Advanced and automated  
fast and accurate diagnosis

## TOSHIBA AND THE ENVIRONMENT

### Good for our planet, right for our customers

Caring for the earth and its people is at the heart of everything Toshiba does – and one of the many ways we innovate. Toshiba's passion for safeguarding the earth is enshrined in our Environmental Vision 2050, whereby we seek to improve our eco-efficiency by a factor of ten over the next four decades through strict monitoring of energy usage, continuous improvement of manufacturing processes and eco-conscious product development.

Far from being a distant goal, the Environmental Vision 2050 sets tangible milestones year by year. These include the reduction in emissions of CO<sub>2</sub> and other greenhouse gases, and the complete phasing out of certain hazardous substances from our products.



### Shorter scan time and reduced power consumption achieved with a 160 mm wide area detector

Aquilion ONE<sub>VISION</sub> incorporates a 160 mm wide area detector with an axial length five times larger than a conventional 64-row detector (32 mm), allowing both the scan time and the electrical power requirements for scanning to be reduced to approximately 1/5.<sup>(\*)</sup>

\*1: Varies depending on the scan conditions.

\*2: Compared with Toshiba products in which ADR 3D is not installed.

### Low-dose scanning technology ADR 3D that reduces power consumption

ADR 3D technology allows high-quality images to be acquired with lower X-ray exposure than in conventional systems. The patient exposure dose can be reduced by up to 75%,<sup>(\*\*)</sup> with a corresponding reduction in power consumption for X-ray generation.

### Reuse of energy

Aquilion ONE<sub>VISION</sub> features energy regeneration function of the gantry and power which is used for gantry rotation power consumption. Earlier Toshiba

Everybody deserves the right to the best scan  
FIRST TIME, EVERY TIME

WARNING: Any reference to x-ray expo  
for the judgment of a healthcare provide  
Use the As Low As Reasonably Achieva

Disclaimer: In clinical practice, the use of th  
and a physicist should be made to determin  
Due to local regulatory processes, this produ

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<http://www.toshibamedicalsystems.com>

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Model number: TSX-301C MCACT0239EA 2013-03 T