

*Thinking Women!*

## nu:view BENEFITS AT A GLANCE

- ▶ World's first photon-counting spiral breast CT
- ▶ True 3D imaging with high isotropic resolution
- ▶ No superimposition, superb soft tissue differentiation
- ▶ Excellent detectability of microcalcifications
- ▶ Low dose in the range of mammography
- ▶ No breast compression, scan times within seconds



## TECHNICAL SPECIFICATIONS



X-Ray Tube

- Focal spot size: 0.4
- Tube voltage: 60 kV
- Tube current: 5-125 mA
- Power: up to 7.5 kW
- Filtration: 3 mm Al



Detector

- Type: Photon-counting (direct conversion)
- Sensor: CdTe, 0.75 mm thick
- Pixel size:  $(100 \mu\text{m})^2$
- Detector pixel matrix: 2816 x 512
- Frame rate: up to 1000 Hz



Scan

- Spiral CT
- Up to 2000 projections per 360° (up to 12,000 per scan)
- Acquisition times: 7-12s per scan; 2s (circular)



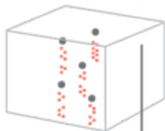
Reconstruction

- Fully isotropic high spatial resolution
- Field of measurement:  $\varnothing$  200 mm x 80-160 mm
- Voxel size:  $(90 \mu\text{m})^3$  -  $(300 \mu\text{m})^3$

## EVERY SINGLE PHOTON COUNTS



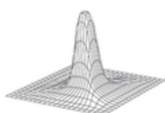
X-Ray



**Semiconductor (CdTe)**  
X-rays are converted to electrical signals and channeled



Counting Circuit



Image

### High Resolution | almost like film

The small pixel size of  $100 \mu\text{m}$ , combined with almost 100% geometric efficacy, yields a precise sampling and very sharp images.

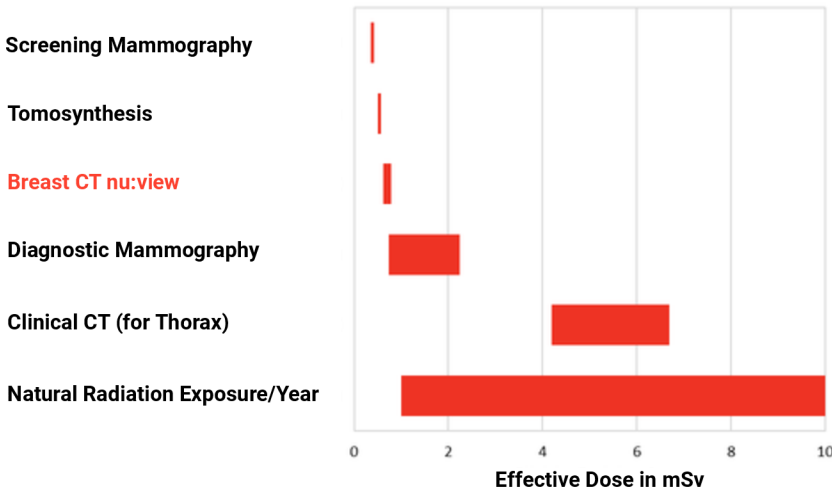
### Direct Conversion | fast and lossless

All photons are instantly converted into electric charges, thus enabling ultra-high-speed sampling. In addition, light-spread and electronic noise are eliminated entirely.

### Photon-Counting | capturing each photon

Each photon is captured and contributes its information equally. The important image contrast carried by low-energy photons is preserved, increasing the image quality.

## RADIATION DOSE ACROSS MODALITIES



### Comparison to Mammography

Within the limits of screening mammography and lower than the typical dose values for diagnostic mammography.

### Comparison to Clinical CT

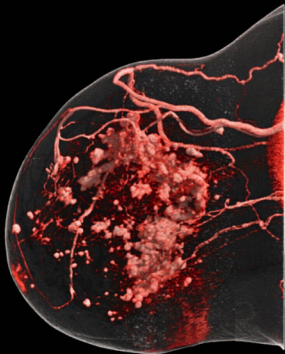
Up to 10 times lower than thorax CT.

### Comparison to Natural Radiation Exposure

Significantly below the average natural radiation exposure per capita and year in Germany.

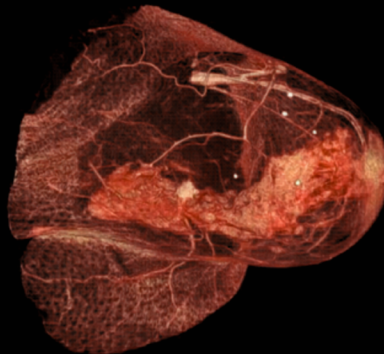
## CLINICAL PERFORMANCE

Multicentric Tumour



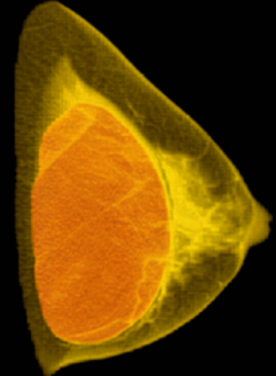
Courtesy of  
Prof. M. Wasser, Leiden University Medical Center

Breast Tumour with Scar



Dr. K. Ridder, MVZ Prof. Dr. Uhlenbrock und Partner

Intact Implant

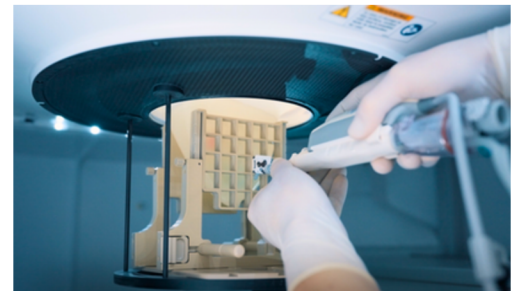


Prof. A. Boss, University Hospital Zurich

## NOW WITH IMAGE-GUIDED VACUUM-ASSISTED BIOPSY

nu:view provides a complete solution in breast diagnostics, combining precise imaging and efficient tissue sampling in a single streamlined workflow.

- ▶ Exact localization and fully automatic navigation calculation
- ▶ Compatible with existing vacuum biopsy systems
- ▶ Fast biopsy procedure in less than 10 minutes
- ▶ Low radiation dose (< 15 mGy)



Want to learn more about nu:view ? Contact us at: [ask.crm@ab-ct.com](mailto:ask.crm@ab-ct.com).



More information:  
nu:view showroom

Disclaimer: Please contact AB-CT to check availability in your territory.