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**uMR 770** 

**3.0**T MRI

Agile. Accessible.

# uMR 770 UCS

#### 3.0T MRI driven by uCS.

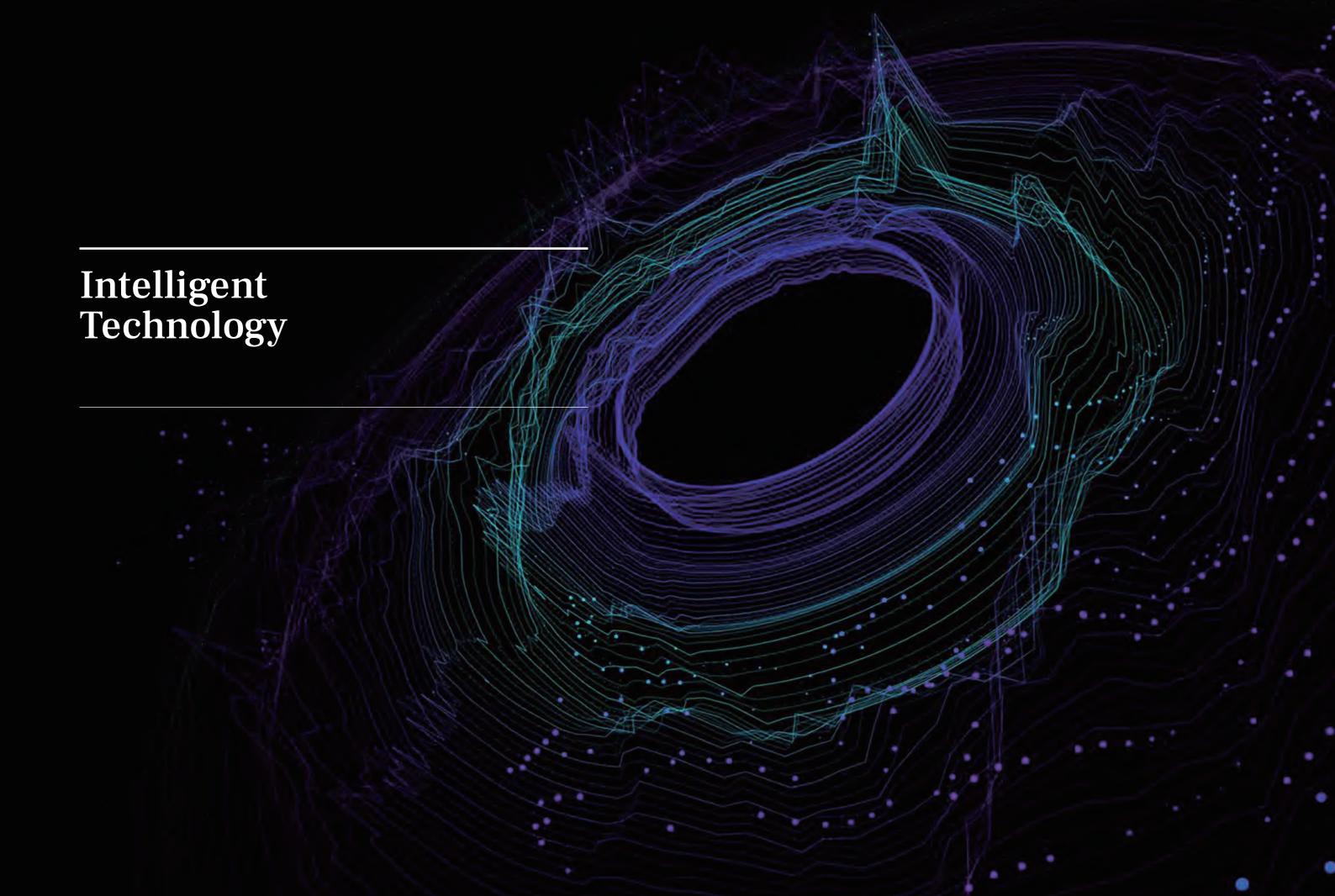
Driven by intelligent technology and uCS<sup>2.0</sup> imaging platform, uMR 770 is setting a new standard for 3.0T superconducting MRI.

Intelligent Technology

uCS<sup>2.0</sup> Imaging Platform

Comprehensive Clinical Application



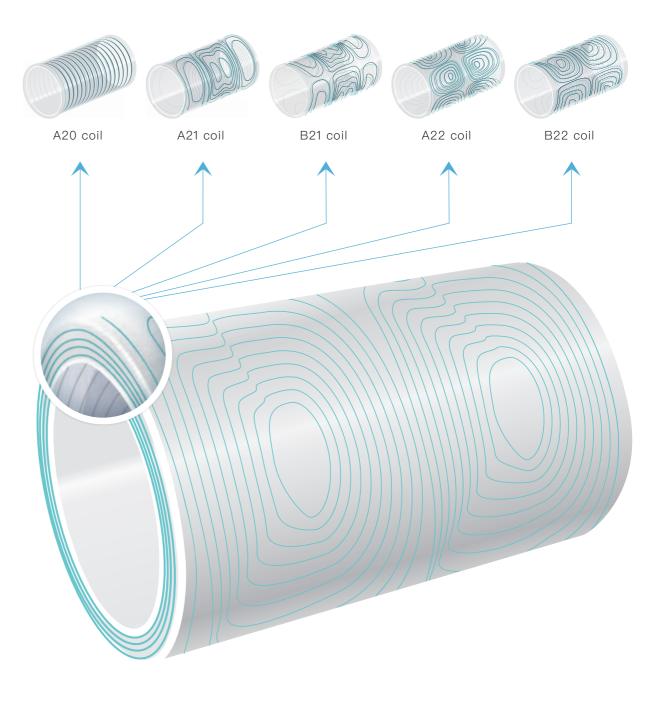




## **Intelligent Magnet Technology**

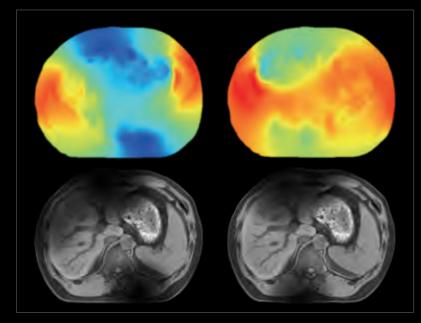
uMR 770 provides 3-channel linear first order shimming and 5-channel high order shimming. The extra five groups of coils can provide precise curved magnetic field, which can adjust the B0 magnetic field according to different human bodies, different parts and different sequences intelligently.

uMR 770 also can reach  $50\times50\times50$  cm FOV with high homogeneity and excellent image quality.

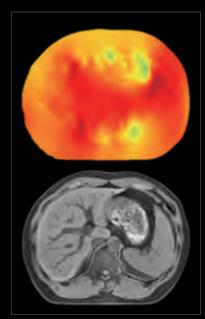


## **Intelligent RF Technology**

Intelligent RF transmission is created with multiple RF amplifiers & independent transmit channel system architecture. This makes it possible to adjust the amplitude, phase, and waveform of the RF pulse, delivering an adaptive protocol customized for each patient.



Traditional RF transmission Nonuniform RF distribution



Intelligent RF transmission Uniform RF distribution

Intelligent RF transmission also can help to achieve special RF optimization of anatomy by customizing RF adaptation for the head, spine, abdomen, pelvis, breast, and joints to lead better image quality for each individual patient.













Head

Spine

Abdomen

Pelvis

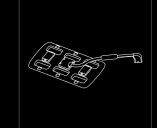
Breast

Joint









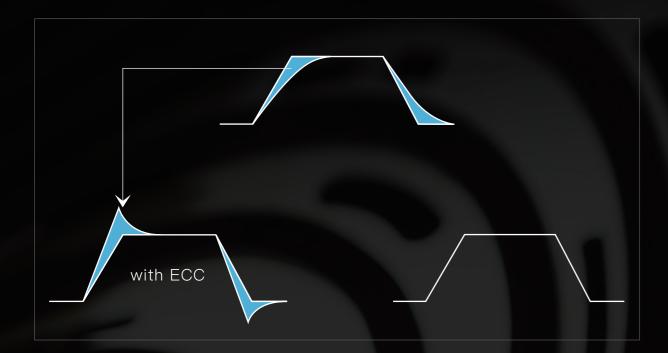
## Intelligent Gradient Technology

# Real-time Intelligent eddy current compensation

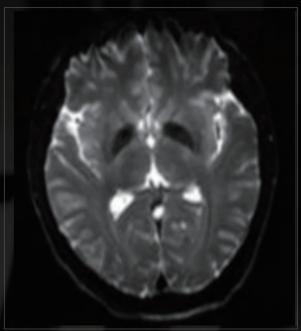
Eddy current prediction, real-time intelligent eddy current compensation

Fast imaging with high gradient linearity and shorter TE

Improve the image signal-to-noise ratio and reduce the deformation

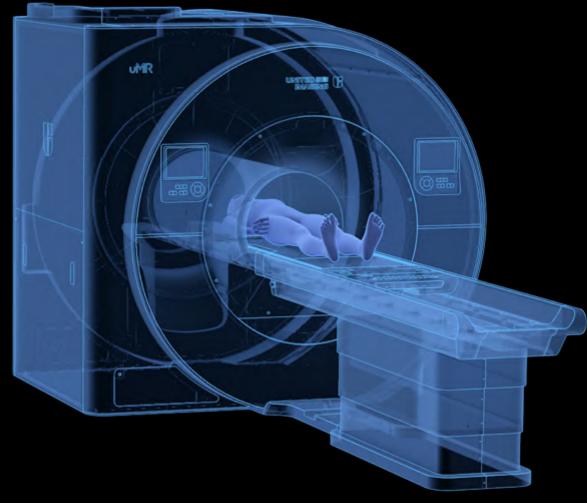






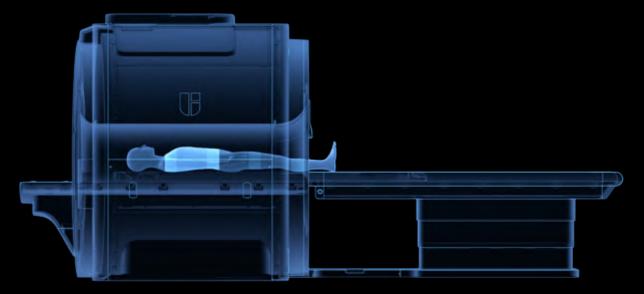
No ECC With ECC

## Intelligent MR Workflow Simplified with UIH Innovations



#### **EasyPosition**

Automatic table positioning with ONE-click



### EasyPlan

Automatic multi-step scan planning and image stitching with ONE-click



#### EasyScan

Intelligent, automatic and consistent anatomical orientation



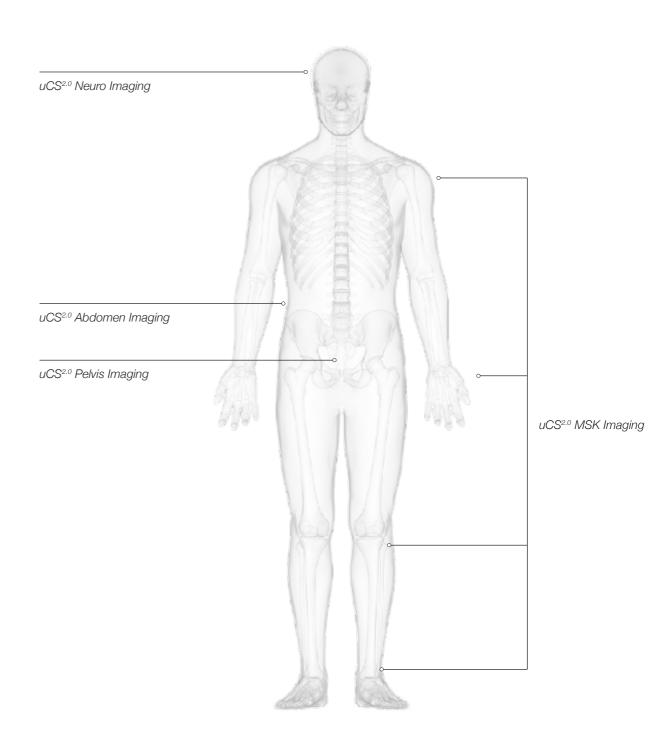
## uCS<sup>2.0</sup> Imaging Platform

uCS<sup>2.0</sup> Imaging platform combines the strengths of conventional acceleration technologies and innovative compressed sensing, breaking through the limits of both speed and resolution with a maximum 36x acceleration..

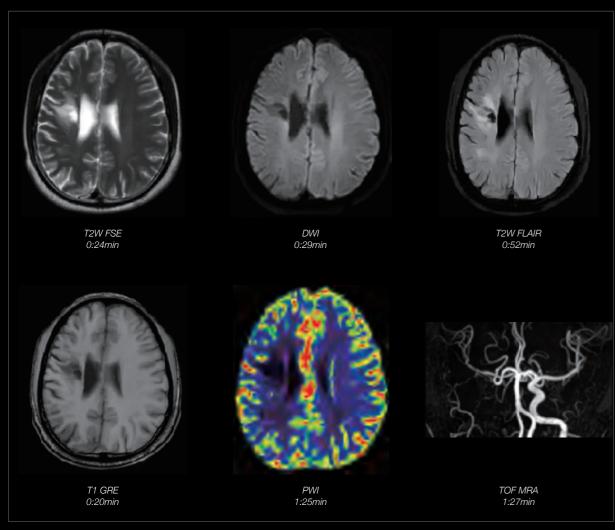
uCS<sup>2.0</sup> Imaging Platform can reduce 30% scanning time on average compared with the parallel imaging and providing consistent or even better details.



# Reduce 30% Scanning Time On Average

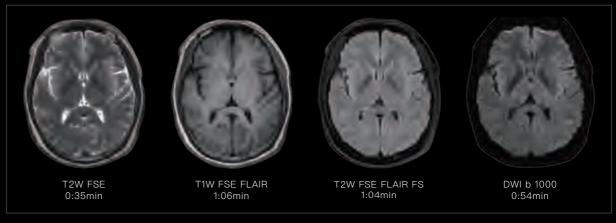


## Stroke Protocol within 5 min



4:57min

# Brain Acquisition Time Reduction of 45%



uCS 2D 3:39min



Parallel Imaging 6:35min

# C-Spine Acquisition Time Reduction of 37%



uCS 2D



Parallel Imaging 16:54min

# L-Spine Acquisition Time Reduction of 20%



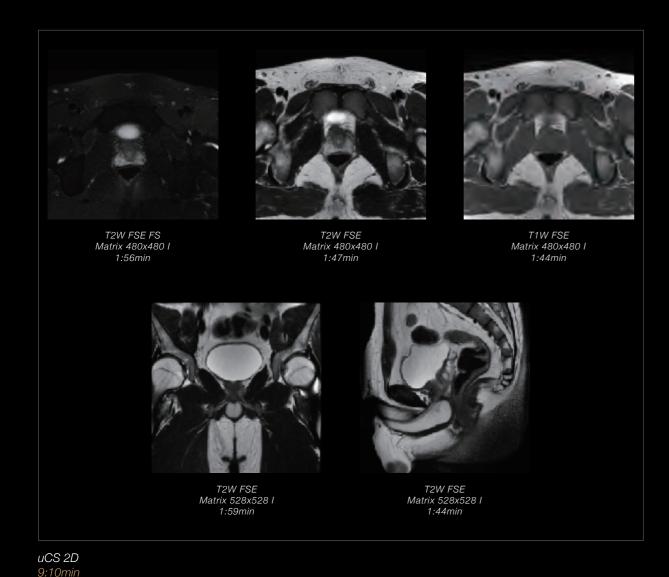
uCS 2D 5:01min



Parallel Imaging 6:14min

### uCS<sup>2.0</sup> Pelvis Clinical Solution

# Pelvis Acquisition Time Reduction of 28%



T2W FSE FS
Matrix 480x480 I
2:40min

T2W FSE
Matrix 480x480 I
2:36min

T2W FSE
Matrix 528x528 I
2:40min

T2W FSE
Matrix 528x528 I
2:40min

Parallel Imaging 13:04min

### uCS<sup>2.0</sup> MSK Clinical Solution

# Ankle Acquisition Time Reduction of 32%



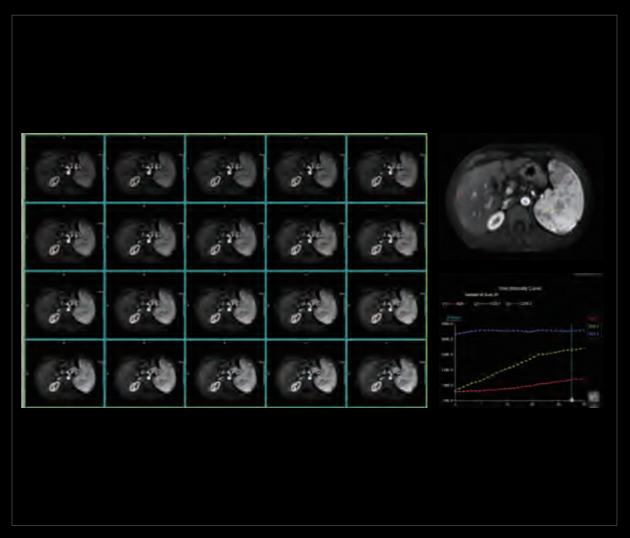
uCS 2D 7:04min



Parallel Imaging 10:19min

### uCS<sup>2.0</sup> Abdomen Clinical Solution

# 0.5s/phase Dynamic Whole-liver Imaging



0.5s/phase, 30 phases

Whole liver coverage

36x Acceleration

#### uCS DWI

Patented gold award algorithm

uCS reconstruction with high SNR and high b value

High fidelity imaging with intelligent motion detection

# Whole-body DWI

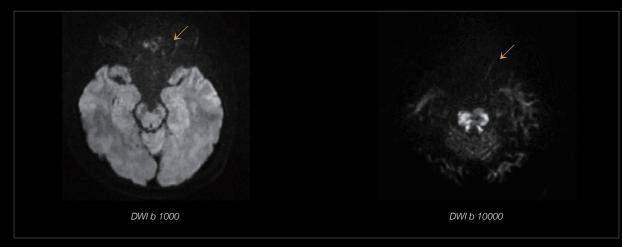
Fast and high-resolution tumor screening

# MicroView

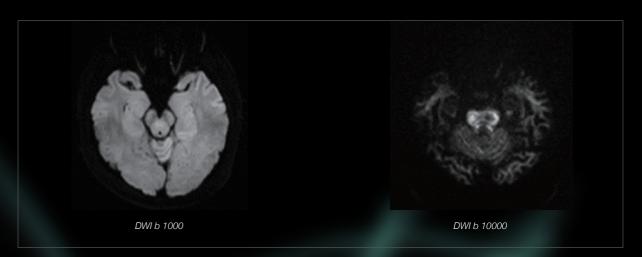
Insight of minor lesions

# **Computed DWI**

Achieve high b value without extra scan time



Traditional DWI



uCS DWI

#### Whole-body DWI | Fast and High-resolution Tumor Screening





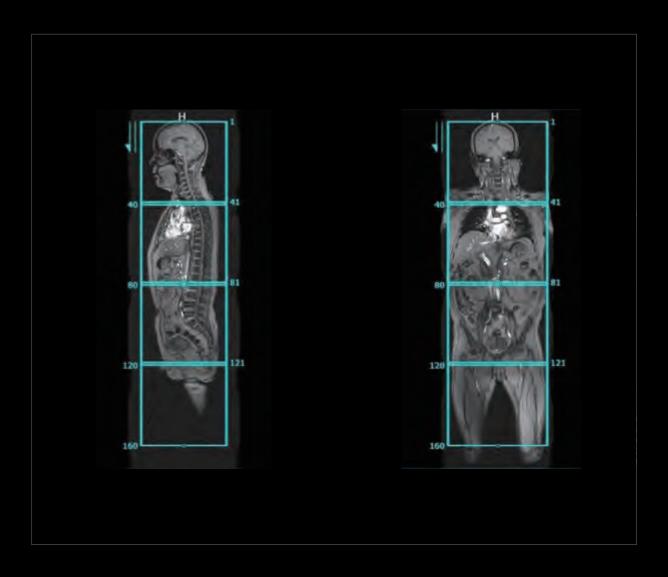


Patients can breath freely during whole body DWI scanning

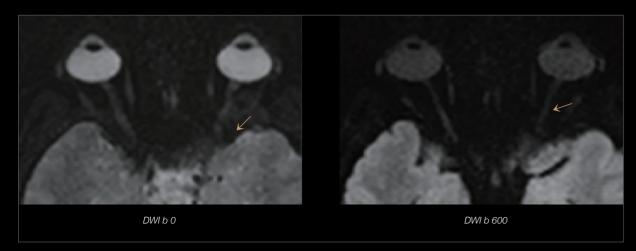
PET like imaging obtained through MIP and grayscale inversion

Tumor screening & tumor metastasis

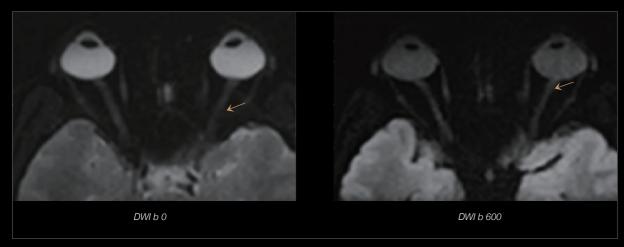
#### Dedicated Whole Body Imaging Workflow



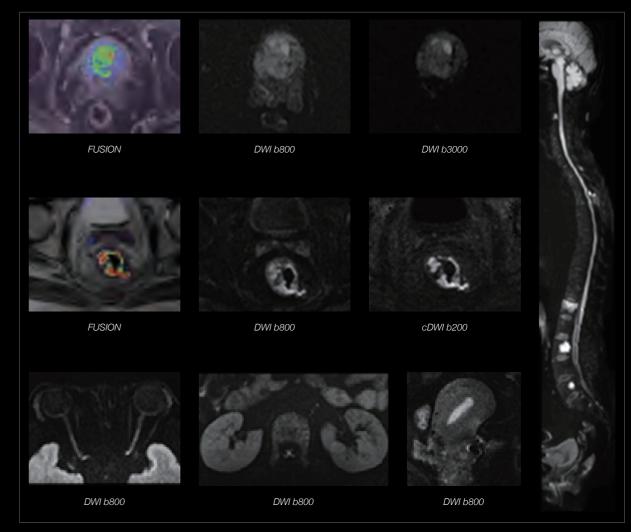
#### MicroView | Insight into Small Lesions



Conventional DWI

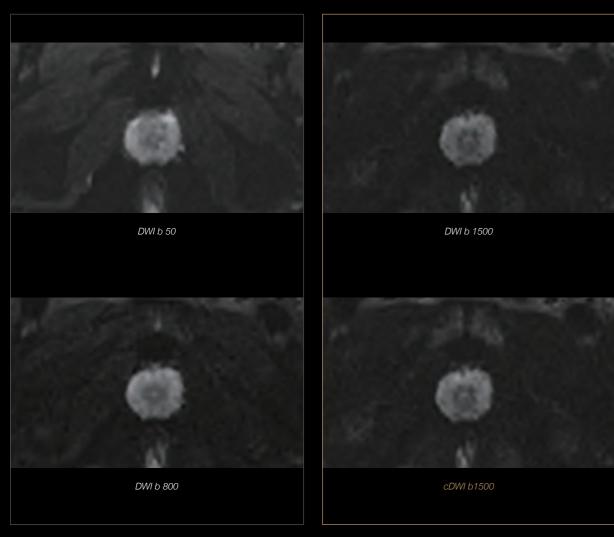


MicroView



Reduce FOV in the PE direction, effectively reducing magnetization artifacts Improve resolution and reduce partial volume effect

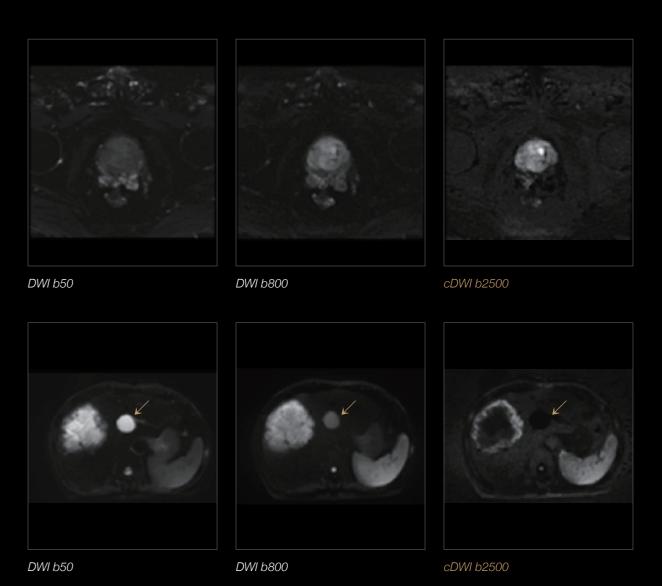
# cDWI | Achieve High b Value without Extra Scan Time



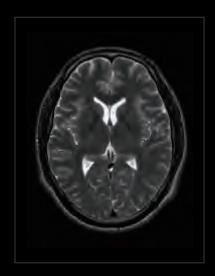
"Zero" time to obtain high b-value

Suppress background noise

Better contrast of lesion signal

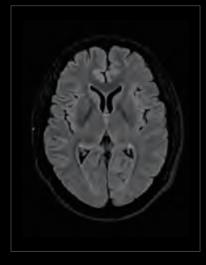


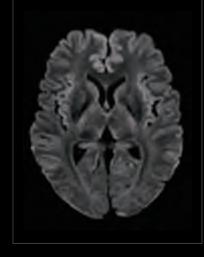
## Neuro





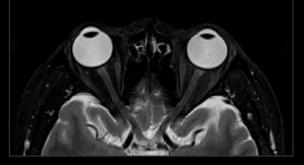


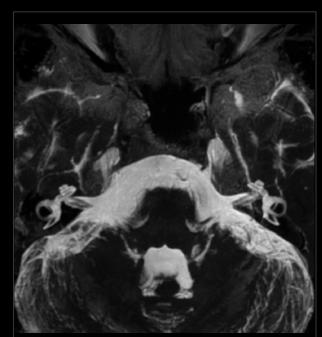


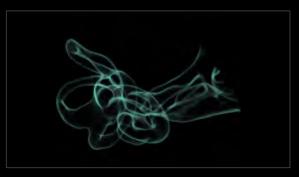






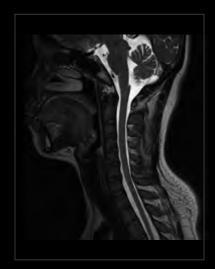






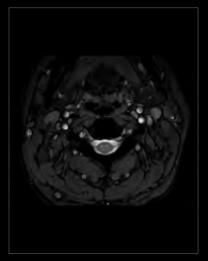


## Neuro

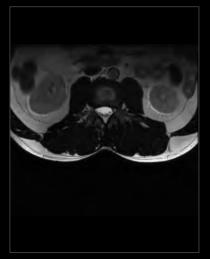










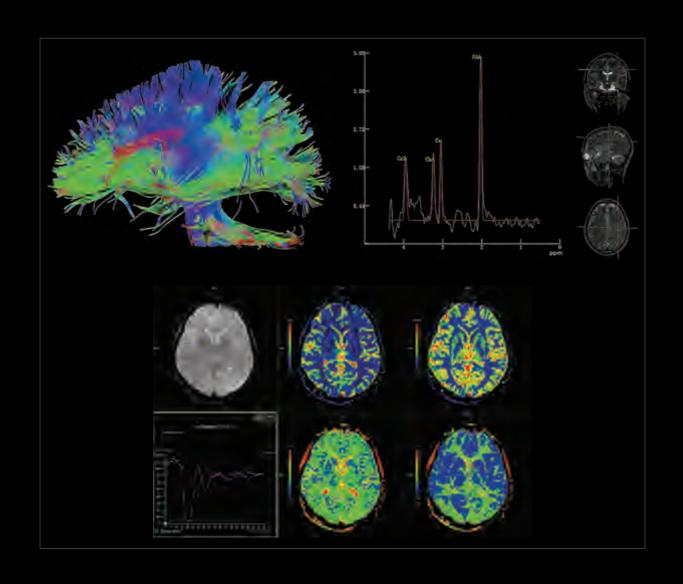


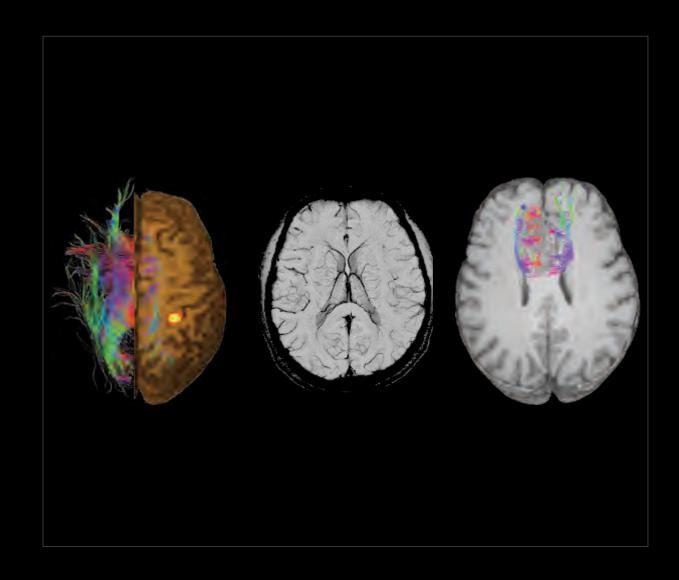






## Advanced Applications





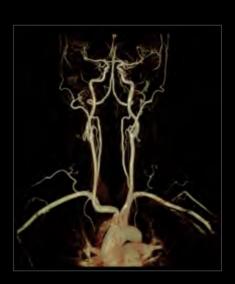
## Angio



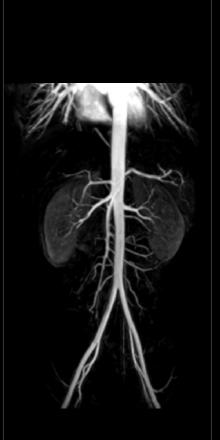






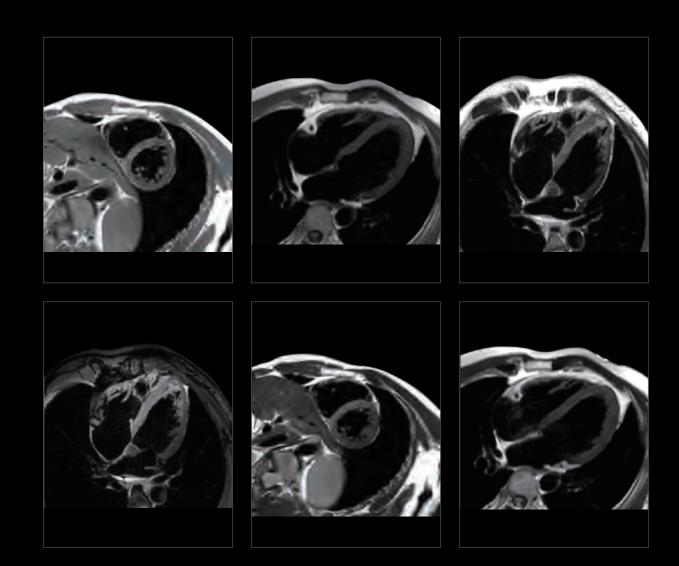


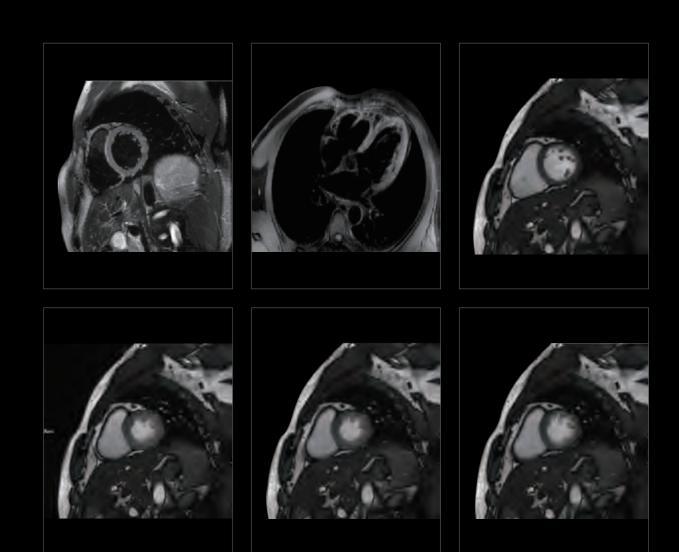




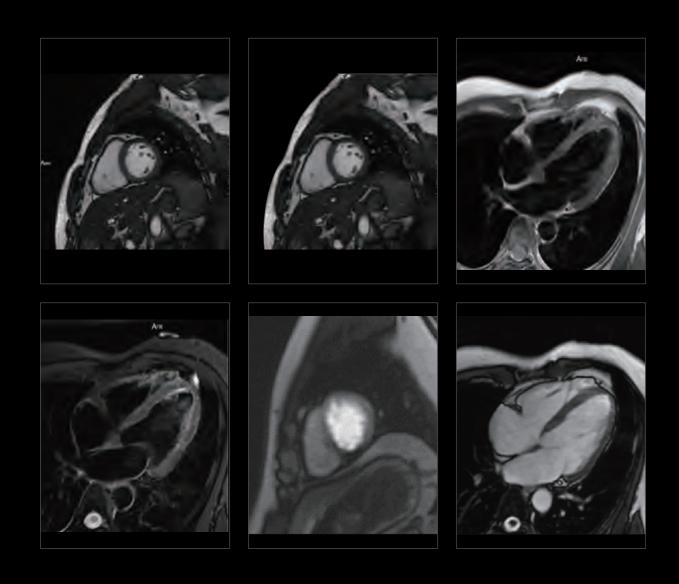


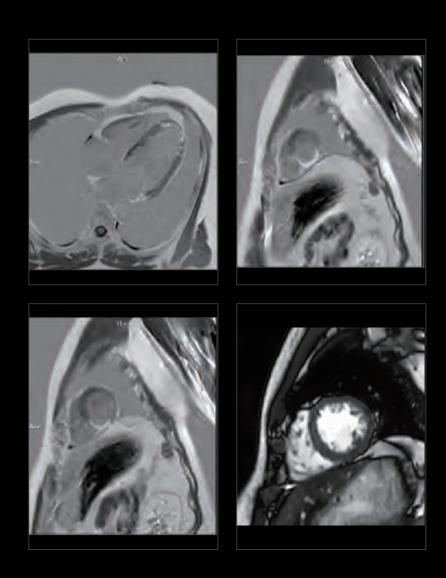
### Cardiac



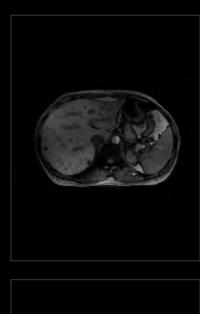


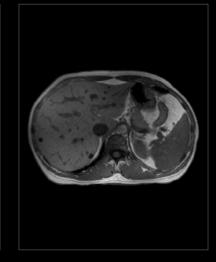
### Cardiac

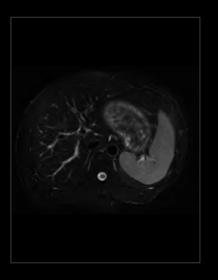


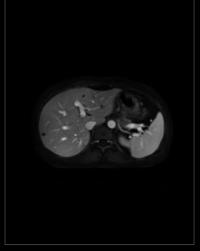


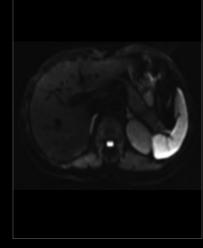
## Body





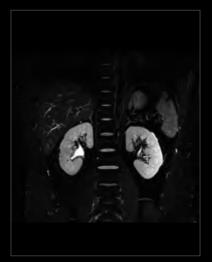


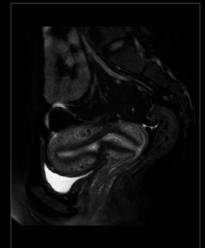




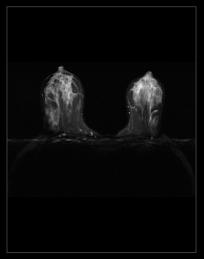


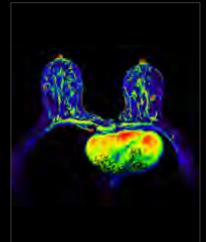




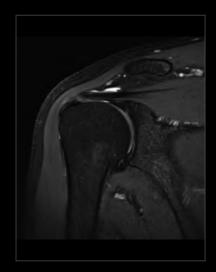


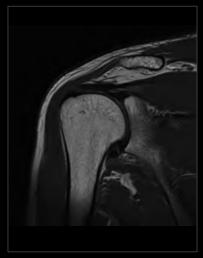


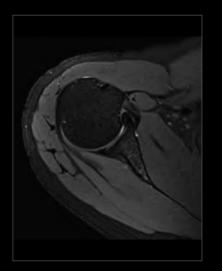




## Ortho

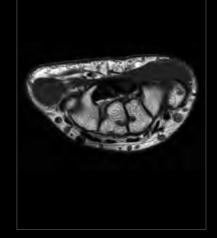


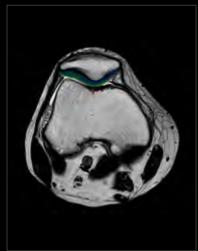






















# Human-Centered Design

Focusing on user experience, uMR 770 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.





#### Pleasing Aesthetics

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

#### User-Friendly Design

The product design delivers comfort, safety, efficiency and ease-of-use. By applying ergonomic principles the uMR 770 combines innovative design with optimal functionality in order to provide the best possible user experience, optimizing patient comfort during the examination.

#### Sophisticated Craftsmanship

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