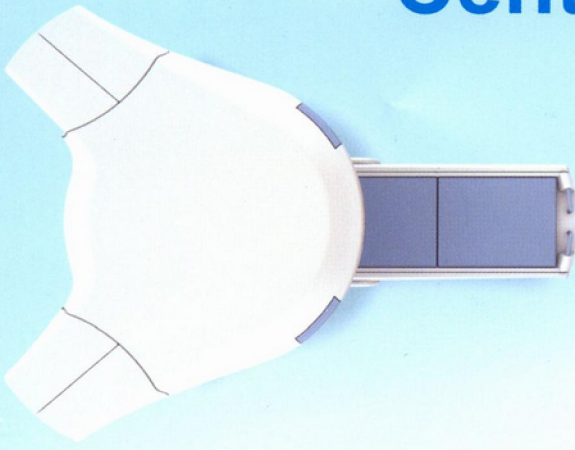


# Centauri MPF3000®



## ■ Permanent MRI with Advanced Technology

Centauri 0.3T MRI takes advantage of Dynamic Balancing Technology innovated by XinAoMDT to achieve high image resolution, signal-noise ratio and contrast, and fast acquisition enabling advanced clinical applications in permanent magnetic resonance imaging systems.

## ■ Dynamic Balancing Technology

Centauri's excellent performance is ensured by Dynamic Balancing Technology under both static and dynamic imaging conditions.

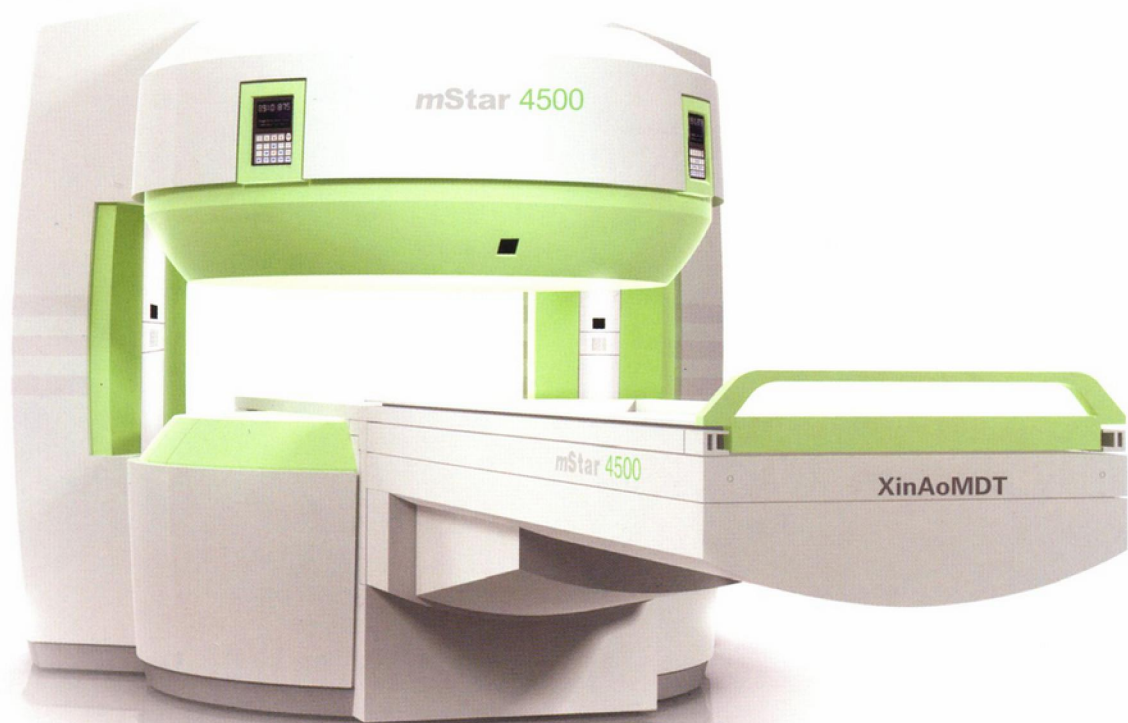
- Targeting Electromagnetic Field Design integrates the design of magnet, gradients and radio frequency systems into one process ensuring the best performance.
- The 3-channel Self-shielded Gradient Coil Technology produces minimal eddy current and residual magnetization in a permanent magnet system. With the ultra thin 6-layer gradient coil design, gradient performance is optimized with high linearity and fast dynamic response.
- High-order Active Shimming Technology is a unique feature of Centauri permanent magnet systems. The up-to 3rd order, 10 channel shimming coils significantly reduce field inhomogeneity and provide excellent magnetic field homogeneity comparable to that of magnetic resonance spectroscopy systems.





# **mStar 4500<sup>®</sup> Permanent Open MRI**

**mStar 4500 MRI is the world's first 4500 Gauss whole body permanent magnet open MRI system which is a milestone in the history of MRI.**



## **■ Protected Core Technologies**

- Targeting field oriented HFEDP and FFYD magnet design technology enables optimized highly efficient open magnet designs
- Self-shielded Gradient Design with DCAST Dynamic Balancing Technology maximizes the gradient performance with minimal eddy current and residual magnetization
- Up to 4th Order Active Shimming Flat Coil Technology ensures excellent magnetic field homogeneity close to that achieved in high-field systems

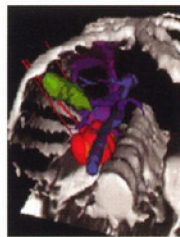
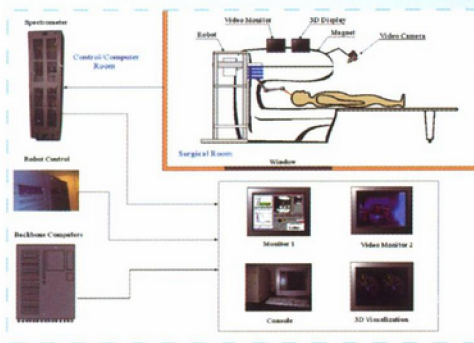
## **■ Significant Clinical Advantages**

- Fast imaging speed (two times faster than that of 3500 Gauss systems)
- High resolution and SNR (50% improvement from that of 3500 Gauss systems)
- mStar 4500 MRI makes parallel imaging feasible in a permanent magnet system enabling fast dynamic imaging
- High field clinical applications available including EPI, DWI, and cardiac imaging
- mStar 4500 MRI fully supports real-time imaging of MRI-guided therapy

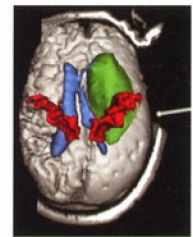
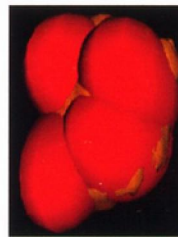


# A Complete Solution of MRI-Guided Minimally Invasive Therapy

Under REAL-TIME MRI guidance, surgical procedure is more safe and accurate, and allows practical minimally invasive treatment. XinAoMDT provides a complete solution for an integrated MRI-guided therapy suite including a real-time open MRI system, navigation system, treatment approaches, in-room display system, surgical tool guide, patient vital signal monitoring, video monitoring and clinical guidance.



Surgical Planning



Real-time Surgery Navigation  
(Courtesy of BWI/HMS)

## ■ System Configuration

- Diagnostic open MRI with real-time imaging capability
  - High image spatial accuracy package
  - Imaging plane real-time adjustment
  - Real-time image transfer and processing
- MRI-compatible interventional therapeutic subsystem
- Argon/Helium cryotherapy
- Biopsy, drainage, gas/medicine injection
- Brachytherapy
- MRI-compatible large screen in-room display
- MRI-compatible optical navigation system
- MRI-compatible surgical tool guide
- MRI-compatible video monitoring system
- MRI-compatible in-room system control module
- MRI-compatible vital signal real-time monitor
- Software package
- MRI console
- Surgery programming and navigation console
- Therapeutic subsystem

## ■ Clinical Application

- Oncology
  - Liver, lung, renal, prostate, breast, spine, uterine, and more
- Neurosurgery
- Muskuloskeletal

## ■ Major Features

- High accuracy targeting
- Real-time navigation
- Real-time treatment procedure monitoring

## ■ Advantages over other imaging guidance

- Multi-planar imaging ability
- Real-time 3D imaging capability
- High soft tissue contrast
- High resolution imaging with clear anatomical and pathological information
- No ionization radiation



# Scientist Team from Harvard and MIT

In late 2003, a group of eight doctors flew to north China from the eastern coast of USA. They graduated from prominent universities including Harvard, MIT and the University of Pittsburg. They are scientists at the forefront of modern science and technology. They were researchers at Harvard, MIT and some of the world's top 500 corporations. They brought with them their own inventions as well as their ambition to develop advanced intelligent medical technologies with the unique Chinese talents and resources.



After countless sleepless nights and numerous experiments, their dream of turning their advanced technologies into products came true. The world's first 0.45 Tesla permanent magnet MRI system was developed at XinAoMDT in less than 7 months breaking the previous prediction that the maximal field strength achievable in a permanent magnet MRI system was 0.4 Tesla. Additionally, the world's first ultrasound/optical diffusion breast imaging system was successfully developed along with the world's first commercially available MRI-guided therapy solution.

Today, a team of leading scientists - that now comprises nearly 20 U.S. scientists and engineers - is attracting scores of world class technical talents. These talents have become the most valuable asset of XinAoMDT.