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## Research units across the world go for the first 3 tesla, cryogen free MRI benchtop scanner

Since the launch of its ground breaking helium free, 3T, bench top MRI scanner late last year MR Solutions has taken orders for the installation of five of these revolutionary machines from university and hospital research units across the world.

The universities of Antwerp, Düsseldorf, Perth (Australia) and the hospital research centres at George-Francois Leclerc centre (France), Beaumont Hospitals (Michigan) are installing these powerful new scanners over the next year.

The new scanner, not only provides superior soft tissue contrast and molecular imaging capability but because of its new design, it only takes the space of a desk, it can be easily fitted in within an existing laboratory. This is because the scanner has two major advances.

Firstly it does away with the usual liquid helium cooling system by using a revolutionary magnet design incorporating new superconducting wire. This enables the use of a standard low temperature cryocooler (fridge) to cool the magnet to the required 4 degrees Kelvin (minus 269 degrees C) – needed to achieve superconductivity - through a technology solution pioneered by MR Solutions and its magnet partner.

Secondly it does not have to be in a separate metal lined room (a Faraday cage) as its stray magnetic field is only a few centimetres and will not interfere with the other equipment in a laboratory. The elimination of the helium cooling system has allowed the optimum installation of an additional solenoid which counters the stray magnetic field.

These technological advances have dramatically reduced the cost of this powerful scanner to make it extremely competitive.

Professor Van der Linden Bio Imaging Laboratory of the University of Antwerp commented "We have been working with MR Solutions for many years as they are the technological leaders in this field. This new scanner is a breakthrough and will provide us with the extra scanning power we need within our existing facilities."

Professor Van der Linden continued "We can just wheel it in without knocking down any walls and without having to install a costly helium system and the safety system that goes with it. And as its stray magnetic field is so small we can put other sensitive laboratory equipment and scanners close by for much better work flow and don't have to isolate it in a Faraday cage."

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