

From left:  
Professor J. Marcus Wharton, MD, Medical University of South Carolina, Charleston, SC, USA;  
Feroze Mahmood, MD, Beth Israel Deaconess Medical Center, Boston, MA, USA;  
Professor Josef Ludwig, MD, University Hospital Erlangen-Nuremberg, Germany;  
Claude Angel, MD, Marie-Lannelongue Surgical Center, Plessis-Robinson, France



Cardiology is filled with examples of how the right technology in the right hands can make patient outcomes that once seemed impossible routine. Today's challenge lies in refining current technologies and procedures to further advance what is possible. Here is an assessment of four distinguished physicians discussing how they use the latest technology to benefit their patients.

By Sameh Fahmy

# Making the Impossible Possible

At the Medical University of South Carolina, Charleston, USA, Professor J. Marcus Wharton, MD, is curing arrhythmias that previously could not be treated. Wharton says the high signal quality provided by the Siemens AXIOM® Sensis XP recording system helps make this possible. At Beth Israel Deaconess Medical Center in Boston, MA, USA, Feroze Mahmood, MD, and his colleagues are repairing valves using a 2.5-inch incision, sparing patients painful and disfiguring sternal splits. This minimally invasive surgical procedure is complicated, Mahmood says, but is aided by the superb signal quality of the ACUSON Sequoia™ ultrasound system and advanced technologies and applications such as automatic image optimization and 3D image reconstruction. Three-dimensional reconstruction is also playing a role in improving treatment for coronary artery disease at the University Hospital at the Friedrich-Alexander-University Erlangen-Nuremberg, Germany.

There, Professor Josef Ludwig, MD, is using *syngo*® IC3D software to accurately and quickly assess bifurcation angle and vessel diameter so patients receive the most appropriate stenting. At the Marie Lannelongue Surgical Center in Plessis-Robinson, France, Claude Angel, MD, focuses on congenital cardiac malformations. He hopes to be able to further explore the trends towards non-invasive diagnostic imaging, aided by the SOMATOM® Definition computed tomography scanner. Diagnostic accuracy, he says, is crucial for the recent developments in the field of minimally invasive treatment options. The following stories demonstrate that progress in cardiology has been rapid, but that the best may still be ahead as technologies such as magnetic navigation, 4D angiography and 3D ultrasound find a wider use. After all, what is impossible today may seem routine in just a few years.