

## Editor's Page

# Cardiac Imaging Unlimited

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**D**uring the last forty years, our speciality, cardiovascular medicine, has undoubtedly taken giant steps forward. Today, we have a deeper understanding of the pathophysiology of cardiovascular diseases, better and faster means of diagnosis, and, most importantly, more effective therapeutic choices.

A primary factor in these developments has undoubtedly been the many faceted progress in cardiac imaging. Nowadays, although classical coronary angiography is still irreplaceable in everyday use, it pales in comparison with the complex, astoundingly high definition techniques that offer complete visualisation of the anatomical elements of the heart and blood vessels. Magnetic resonance imaging, multi-slice computed tomography, echocardiographic techniques and those of nuclear medicine, form an impressive spectrum that is able to discriminate not only simple but even very complex anatomical and functional problems.

At the same time, there have been advances in the field of functional visualisation based on electrical cardiac signals and computerised models. Special endocardial electrodes can deliver computer-enhanced images of amazing precision that depict the depolarisation and repolarisation of the myocardium and adjacent anatomical structures. It is these techniques that have allowed the modern developments in cardiac electrophysiology and ablation. Furthermore, it is extremely encouraging that these methods can now be combined with images from magnetic resonance and endocardial ultrasound in order to improve the results of invasive therapeutic methods.

All this progress should surely create a mood of optimism regarding the scientific development and clinical application of cardiovascular imaging. Unfortunately,

however, as a result of interdepartmental wrangling and financial interests, the reality that we live from day to day often proves to be different.

In many European countries, as in Greece, specialists in cardiovascular disease do not have direct access to all imaging modalities, especially those, such as magnetic resonance, that do not belong to conventional radiology. Of course, there are also countries that have a different philosophy and different laws. It is interesting that traditional radiology departments are often reluctant to get involved in the study of cardiovascular disease, for various reasons, and in some hospitals this has led to a lack of appreciation for the startling progress in cardiac imaging.

Clearly, the complex development of new imaging technologies directly demands a new approach, in which the outmoded politics of power struggles and bickering can be revised for the better. Cardiology departments, especially those in large university hospitals, are being suffocated by the lack of a wide appreciation of new and rapidly developing imaging techniques. Those departments should be given the chance to develop for themselves new methods for the visualisation of cardiovascular diseases, in which cardiologists can be trained in order to acquire full scientific competence in those specific areas. In other words, there should be no boundaries or limits to development.

Of course, there must be management and coordination of the departments concerned, so as to avoid overlap and needless duplication of effort. However, these details can be worked out once the new principles are established. Only then can the speciality of cardiovascular medicine follow an integrated and self-reliant path of progress.