

## Editor's Page

# The Young Cardiologist Facing the Renaissance of Cardiovascular Science

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**C**ardiology is evolving fast, demonstrating a capacity to exceed the expectations of any young cardiologist. Routine practice in 2005 includes clinical procedures that were not even imagined in the millennial forecasts of 2000. Furthermore, we are witnessing an explosive growth in our knowledge of the mechanisms of cardiovascular diseases, at a rate that none could have envisioned a few years ago.

The scientific and technological forces of change in the fields of preventive and clinical cardiology are accelerating. All dimensions of cardiovascular science are now being shaped by the digitisation and convergence of information. Non-invasive alternatives to angiography, magnetic resonance imaging and computed tomography, successful trials of autologous cell transplantation into the myocardium, intravascular therapies (angioplasty, stents), drug-eluting stents, electrophysiology, Doppler effect, new pharmacological agents along with constant research, are all contributing to better outcomes in every area of cardiovascular science. Additionally, practice guidelines have become an increasingly popular means for clinical assessment and treatment. In the future, genomics and bioinformatics will become a powerful new tool for predicting heart disease, even in a pre-symptomatic stage. Although treating heart disease is the primary goal, current cardiology also targets two other priorities: the prevention of cardiovascular disease and the provision of education to patients concerning lifestyle modifications.

The young cardiologist, encountering these new findings and challenges to conventional thinking, has to be capable of combing the knowledge base for each new piece of information, always having in mind that none is an absolute, enduring truth. Subspecialisation, common in cardiovascular science, produces at least as much complexity as clarification.

Cardiology is arguably at the leading edge of scientific progress. The coming generation will face the creative destruction and rebirth of what we know today as heart healthcare. All these innovations will apparently reshape the delivery of medical services. The old adage "if it sounds too good to be true, it probably is," summarises the whole spectrum of future cardiovascular science. Fascinating as it is, it cannot overshadow the fact that no technique, drug or any other innovation can or should replace the physician's initiative, pure critical thinking, the classical stethoscope and the importance of physical examination. Strategic focus on basic knowledge and careful adaptation of new technology will define the levels of care that a doctor can provide to a patient.



**Figure 1.** Is there an ideal balance?