

## Editor's Page

# Characteristics of the Good Researcher: Innate Talent or Acquired Skills?

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*“The reasonable man adapts himself to the world; the unreasonable man persists to adapt the world to himself. Therefore, all progress depends on the unreasonable.” - George Bernard Shaw*

**R**esearch is the locomotive of innovation in current medical and biological sciences. Especially in our field, cardiovascular medicine, we are witnessing a tremendous increase in research activities, and this is mainly driven by the rising prevalence of cardiovascular diseases in the contemporary populations of the 21st century. Current researchers attempt to hammer away at all questions that arise from the need for a more comprehensive appraisal of cardiovascular pathophysiology. Answers to such questions will promote the development of novel prevention strategies and treatment modalities. As an example, recent research has provided new knowledge about the biology of atherosclerosis or the genetics of cardiomyopathies and sudden cardiac death syndromes, and this knowledge has been translated into a survival benefit for the patients concerned. In addition, practice in the era of modern medicine must be unequivocally evidence based. In medicine, the reasonable does not always prove to be true. A good example is the surprising yet straightforward results of the CAST study.<sup>1</sup>

Research provides valuable insights into all these issues. Nowadays, an increasing number of doctors and other health scientists deal with several research projects. In this context, there are some minimal requirements that such persons have to fulfill in order to conduct a reliable and meaningful study.

For a cardiologist, engagement with research presupposes a wide and global knowledge of all the basic principles of contemporary cardiovascular medicine.

The practice of clinical cardiology provides the researcher with all those stimuli that would help him to formulate a meaningful hypothesis to be tested in the research protocol. In addition, a good researcher must be open-minded and must also adopt a critical way of thinking. Besides, he/she should be hard working, diligent, focused and devoted to his/her specific field of interest. Updating his/her knowledge is of utmost importance and can be accomplished in several ways, such as following the current literature, attending conferences or exchanging ideas with colleagues working in a relevant field.

Furthermore, a modern researcher must be resourceful and inventive in order to transform his/her scientific queries and hypotheses into a realisable protocol. Moreover, he/she has to acquire an excellent knowledge of the measurement tools and techniques of the relevant field. When he/she interprets and presents results, he/she must be precise and honest. Misinterpretation or even falsification of data will not only lead to deviation of future research and invalidate the work of future researchers, but will ultimately deprive patients of the correct diagnosis and the appropriate treatment.

Although there is no need to be a statistician, he/she has to be aware of basic mathematical and statistical principles in order to be able to appreciate and interpret results, up to a certain level, and to study critically the findings of other works.

Considering that modern research usually requires the contribution of more than one person, de-

veloping a team spirit and realising that each protocol has to be placed on a cooperative basis is essential for reaching an optimal and meaningful outcome. Administrative skills are also welcome.

It is incontrovertible that there is no certain way to teach a young scientist how to become a good researcher. In line with G. B. Shaw, David J. Lilja, an engineering researcher, reports that the job of a teacher of future researchers, if such existed, would be to teach them a sort of “controlled unreasonableness,”<sup>2</sup> which is thinking beyond the beaten track. Besides this, however, the ability to conduct good research relies on a constellation of several personal traits, skills and abilities, such as those discussed above. A portion of such characteristics can be transmitted with teaching and a further portion can be acquired with continuous, careful and hard work.

All these skills are perhaps sufficient for a health

care scientist to become a *good* researcher. However, in order to become an *excellent* researcher, one has to possess a certain gift which can neither be taught nor learned, but is rather inherent. “There is no substitute for talent,” as Harisios Boudoulas, MD, the President of the Hellenic Cardiological Society, comments in a previous issue of this Journal.<sup>3</sup>

## References

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