

Letters to the Editor

Research in Cardiology Today

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During the first and, to an even greater extent, the second half of the last century, research into heart disease made great strides in both diagnosis and treatment. It is sufficient to note that until 1950 the paraclinical examinations related to heart disease were effectively limited to the 12-lead electrocardiogram and the X-ray, while from today's cardiological pharmacopoeia the only drugs available were digitalis, quinidine, purines, adrenaline, nitrates and mercury diuretics.

The capabilities we have today came into being thanks to the efforts of individual researchers and through medical science taking advantage of developments in other disciplines, such as physics, chemistry and information science.

Research has gained a powerful boost from funding, not so much from the state as from industrial bodies, either in their own institutions (pharmaceutical or technical companies) or through sponsorship of external medical studies. The latter way of providing financial motivation to research workers in hospitals has given rise to concerns about influencing findings, about conflicts of interest, and so on, but it has undoubtedly helped in the development of research within a consumer society where idealism, altruism and noble aspiration are poorly appreciated.

Another boost to research has come from codes and laws, such as those pertaining to the National Health System in

Greece, where the publication of research papers was specified as a required qualification for hospital doctors wishing to advance in their careers, being considered as proof of their professional ability.

An indirect reason for pursuing research activities has come from the large number of medical congresses that are currently organized, both internationally and locally. These congresses, originally few in number and strictly selective regarding the presentation of medical findings, have proliferated over the last two decades, in parallel with developments in transportation and tourism, allowing researchers to combine the exchange of scientific ideas with leisure activities. The congresses are funded, as is the research itself to a large degree, by commercial interests, whose motives it would be difficult to view as purely philanthropic. Quite apart from the possibility of direct influence, a repeated reminder of the very existence of their products tends to engrave them on the hippocampus of the doctor's brain and thus promotes their use.

There has also been a steady increase in the number of cardiological journals, Greek and international, that contain a large number of published articles and most of which are sustained by visible or even invisible advertisements for products related to the practice of cardiology.

Recently, however, although circumstances are still progressing in a way that could be considered positive for research,

there have been some disturbing developments in Greece and also, quite often, at an international level. We are witnessing the publication of an enormous – one could even say monstrous – number of “research” papers. It is not unusual to see international cardiology congresses with three to five thousand presentations and thirty to fifty thousand participants. Greek cardiology congresses, surpassing some of the international ones, can include over 500 presentations. This is an incredibly large number if one considers that the equivalent for congresses of the American or European cardiology societies, in proportion to the relevant populations, would be above fifteen thousand presentations, just from their own regions. If the above figures are multiplied by the number of single- and multi-discipline congresses that take place every year, one can only marvel at the explosion in investigative effort, especially in Greece, that must surely be indicative of a golden age in cardiological research.

On the other hand, if we remove the rose-colored glasses, there are signs to suggest that things have taken an unpleasant turn.

Firstly, the participant in the enhanced, overcrowded congresses, the reader of the multiple journals, stands no chance of following all the presentations or reading all the papers. He or she must focus on items of special interest, running the risk of missing out on broader, more general topics that might be useful in daily practice.

Secondly, given the large numbers and the short time, the judging committees cannot worry too much over the presentations they choose from the submitted abstracts. One often suspects that papers are selected with a view to drawing larger audiences to improve the profitability of a congress, or enabling the regular publication of a journal by attracting advertising revenue.

Thirdly, the blatantly exorbitant number of presentations or publications from certain researchers surely demonstrates their superhuman efforts, or

perhaps it makes one wonder a little about the time needed for the execution of all these studies, or about the proliferation of results on paper. Other possible interpretations of this phenomenon could be the presentation of a single piece of research on multiple occasions, under different titles, or the publication of the same findings looked at from different angles, or the parceling up of research into many small packages.

Another strange and disquieting element is the presentation of a study by a large group of researchers, whose number is not justified by the research itself. One recent congress included a presentation with seventeen authors. One author figured in no less than a hundred nine presentations. It has been suggested before¹ that each individual author's contribution to a study should be clearly specified - a practice that has recently been adopted by some international journals that are facing the same problem. Other journals are trying to put an end to this habit by limiting the total number of authors.

To conclude, the recently observed expansion and intensification of research efforts in cardiology represent a pleasing development, regardless of their real contribution to the search for truth. The danger lies in investigators, old or new, considering that research is a simple and easy matter, requiring little mental effort and no observation of strict codes of conduct, whose findings may be accepted by congresses or journals for reasons other than pure merit, included out of courtesy or in return for career favours.

All bodies responsible for reviewing submitted research papers should conduct an elementary check for obvious deviations from strict scientific codes of conduct.

References

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