Who should research be useful to? What questions should it answer?

Uncertainty is inherent to the practice of clinical medicine; we cannot offer absolute certainties to our patients, just probabilities.

The ability to predict possible future events is very important in determining the diagnosis, prognosis, and therapy. Precisely, medical research is encouraged by this primary need in professionals to improve their ability to make these predictions.

Scientific research is one of the activities in which this endless human ability to explore new territories, search for new realities, strive for new goals, and overcome the obstacles encountered on the road is manifested.

The relationship of the Argentine Society of Cardiology with biomedical scientific research dates back to its foundation, in 1937. The objectives established in its Statute include: "To encourage the progress and dissemination of scientific and technical knowledge in Cardiology." and "To promote research in this branch of Medicine...".

It is vital and necessary to reflect upon the state of the research, not only for the science in itself but also for our commitment to the development of our country, in which our future and our children's future are involved.

The germ of research is present in every one of us from the very moment we ask ourselves the reasons for a sign, a symptom or an event. Every time we distrust what we see or the report of a complementary test, every time an allegedly sufficient explanation turns out to be insufficient, and every time we expect to read the patient's narration between the lines to get what is not evident, we are beginning the journey towards research.

Every day, doctors find a lot of potential starting points in dialogue with colleagues, in seminars, in their own reflections, but the sole idea does not imply research if it is not embodied. The idea dies like the phrases grinded out in a café while time goes by; doing research takes time, a lot of time.

Confirm that the question we have asked ourselves has not been already answered, share it with an expert colleague on the subject, review the literature in depth, be unsatisfied with only one key word when doing research, read in detail, critically... Many times, a question, perhaps wiser than ours, arises from that reading, and deserves our efforts; we ask ourselves if it is worth answering our question beyond self-interest.

Reality shows that doctors' interest in research does not match a suitable academic production; the number of scientific papers that reach the level of publication is low and, in general, they come from a few centers.

Several reasons can justify this scientific "anemia", but the educational aspect is key. Progress in scientific research is closely related to the educational situation in all its levels; methodology should be taught at school and sudied in depth in schools of medicine.

The current physician is the result of an education based on memorization and answering, rather than on asking or doubting. They have to remember all the muscle insertions, the countless branches of an artery, and the double-surname syndromes in order to pass the exam and then be free to forget them. The physician is the result of a teaching style that seems to be determined to kill the curiosity.

Research may emerge only after we have graduated; for some, medical residency is the ideal setting to develop their potential. Which would be the training for those who did not have access to the medical residency system?

Other issues to be discussed include "Who should research be useful to?" "What questions should it answer?"

This is a difficult issue, and there are probably more than one single answer.

The romantic image of the solitary researcher belongs to the past; today, research requires the effort of many people, as well as organization and financial resources.

Of course, the industry does research on what –directly or indirectly– will be profitable. Research agenda is determined by laboratories, aiming at introducing new compounds in the market that replace the existing ones within the context of evidence-based medicine, or at finding renewed niches for drugs that are still paying patents.

Clinical trials have become a source of resources for doctors and institutions, and help provide sources of work and even their own research, which otherwise could not be sustained. They are the extra work for many doctors, and in some cases they have become their main work.

All this is true, but it is also true that, at the same time, controls and regulations from sponsors, regulatory agencies, and the State have multiplied exponentially. That is why researchers have to fill in cumbersome forms for case presentations, and even the simplest clinical act becomes an inexhaustible source of well written words and a claim for documentation.

We have gone through a regrettable time in which anything could be done with little obligation to document it, in which clinical research seems to have ju-

dicialized, in such a way that all the time you have to write and show you have done as demanded by the protocol. Pages and pages are filled, with no contribution to individual knowledge.

Now, the industry is obviously concerned about achieving profitability. Is the industry to blame for the current state of affairs?

Definitely not.

We have no reliable data about the prevalence of different diseases in our country; we have no information about treatment modalities or patient outcomes. Data from the public sector are partial, and there is a distinct lack of data from the private sector. There are isolated efforts, proactive records, which show only a partial reality.

Research must be done with social consciousness, and both the State and the scientific societies are responsible for its implementation.

The questions to be answered are not the ones included in the clinical trials. Prevalence of diseases with high population incidence, sanitary problems like the Chagas disease, which affects millions of fellow countrymen, remain eternally forgotten. The relation with socio-economic factors, barriers for the implementation of adequate measures of control and treatment, strategies to diagnose and change reality.

Ironically, the industry continues seeking for new alternatives when we do not know how to put the proven alternatives into practice, with a safe impact on health.

Particularly in cardiology, societies should work together with universities, the Academy of Medicine, and the Ministry of Health in order to get reliable answers. Advocating for governmental and non-governmental funding for research, promote a "research attitude" in students from the School of Medicine and postgraduate courses and from residency programs is necessary if we want to have a critical mass that is able to change the situation.

Perhaps the SAC cannot lead such an effort at the national level, but it can be a very important link, one of the necessary participants in the discussion table and in decision making.

These thoughts aim at responsible criticism and dissent, because it is one of the ways to achieve certainties.

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