

The Divisions or Disciplines and the functions of the University

As Divisões ou Disciplinas e as funções universitárias

ORLANDO DE CASTRO E SILVA Jr.

Editor da Revista Medicina

Professor Titular do Departamento de Cirurgia e Anatomia da FMRP-USP

In the present Editorial, I would like to consider again the teaching function within the University. Is it possible to expect that a professor will be a good investigator, will teach good graduate and postgraduate classes, will be an eminent surgeon or clinician and also an excellent administrator? The reply is: it is possible and such a professional may exist, but it is difficult for one person to have all of these qualities. Today, with all the scientific and technological sophistication, with the democratization of knowledge, with the variety of pedagogic resources and the professionalization of the administration, it would be difficult for a human being to exercise the four functions with the same efficacy and brilliance.

However, it was always my opinion that involvement in the production of knowledge is an absolutely necessary prerogative of anybody with professional ties to the University, especially those holding teaching positions. I also believe that the extrapolation of attitudes and practices typical of scientific work to the remaining fields of academic work contributes to the improvement

of higher education, of the extension of services to Society, and of the administration of the University itself.

The result of involvement in research activities, in addition to its major purpose of contributing to the generation of knowledge, can be demonstrated in three other areas of professional activity. One of them refers to the contribution to the training of people in projects of scientific initiation and of postgraduation *sensu stricto* and *sensu lato*. Engaging in research may represent a lot in terms of the acquisition of attitudes and skills that will favor any field of professional activity.

Another one refers to the creation of conditions that will permit persons or groups of investigators to carry out work of their interest using methods implemented within the Institution for the creation of Centers of clinical or experimental excellence. A result of this, for example, could be the creation of research laboratories within a Division or Department.

A laboratory promotes working independence essential for the development of research lines, with consequent benefits for the scientific production of the profes-

sors. This attracts a sizable financial investment on the part of Financing Agencies. For example, the method for the study of mitochondrial function developed in the Department of Surgery and Anatomy (DSA), together with its later modifications carried out in collaboration with physicists and engineers of the "Instituto de Física" of São Carlos (IFSC-USP), favored the development of various projects by advisors and their students which culminated in various publications at all levels. This biochemistry laboratory set up in the DSA has satisfied for several years the requirements of research and assistance, with perspectives of continued future work over many years. Another important aspect of scientific investigation is the possibility of implementing specific methods that, after appropriate standardization, can be used in the health care field, in diagnostic evaluation and in the therapeutic definition of special cases. Fitting this interpretation of research activities are the Photodynamic Therapy (PDT) technique for the treatment of tumors of various organs, and Laser Fluorescence Spectroscopy. This method, developed and refined in collaboration with the Institutes of Physics of Moscow and of São Carlos, not only provides the diagnosis of tumors, but also defines the safety margin for surgical resections. Obviously, the participation of scientific initiation and postgraduate

students, of residents, assistants and professors ultimately determines the rhythm of activity of the entire Group, whose repercussions can be evaluated on the basis of the scientific production of the Group and of the professor in particular.

Another objective of Professional activity in scientific investigation is to contribute to the generation of new knowledge that, once disseminated, can be used for the production of further knowledge or for the improvement of other human activities. It is clear that, on the basis of the above comments, the involvement of professors in scientific investigation influences the level of care practiced. However, it is difficult to imagine that a professor will possess the same skill required by the four aspects of university function, and therefore another view should be adopted. It is the task of the chief of the Division or of the Discipline to identify the individual vocations of its members and to invest in each one of them, aiming at the uniform growth of the Group and doing what each professor in most cases is unable to do individually.

The chiefs should be concerned about developing strong Disciplines within the ensemble of university functions, so that each faculty member will benefit according to his best vocation, consequently maintaining the excellence of the University.