A number of public bodies have taken measures to promote applied research over the past decade, and the fruits of that labor are only beginning to ripen. Calls for research projects in priority areas and applied research have led to the emergence of trends in research, similar to the trends seen in such mundane areas as fashion, gastronomy or advertising. Researchers have gravitated towards “meeting market demands” always linked to the “funding trends” of each season. However, converting these trends into benefits for society does not involve meeting demands but pursuing the fundamental objectives of science. In the case of research, we are beginning to mature, converting into actual facts ideas entertained in the past. At this time, it can be said that we are on the way to achieve an efficient transmission of knowledge from universities and research centers to the industry. By way of example, in the region of Vizcaya, the technological park of Zamudio hosts over 180 biotechnology enterprises invoicing over 1.6 billion euros and employing over 6,400 workers, many with high education. This is the result of the efforts made by the Basque autonomous authorities to support entrepreneurship in biotechnology.

The priorities of biotechnology enterprises in the bio-health field and therefore in ophthalmology are focused on the following points: (1) designing new, simple and efficient diagnostic methods able to detect pathologies earlier and with greater precision (2) increasing knowledge about mechanisms and forms of application of treatments, a field in which pharmaceutical technology plays a major role; and (3) new materials and nanotechnology applied to treatments. Great ideas have always come out of the combination of different viewpoints about a specific problem. Accordingly, the combination of engineers, chemists, pharmaceutics, biologists and medics is leading science to new spheres.

In the midst of this revolution of science and technology, development and innovation, the University continues to play a crucial role. That is where applied sciences researchers and managers obtain their training. In addition, there is a frequently ignored rule which states that University professors must research and train their students in scientific methods and ways of thinking as well as in current techniques and methods, including practical execution and adequate presentation of results. And University professors find themselves at the core of the economic and social boom to be seen in the next few years.

All who have gone through University know that, with a few remarkable exceptions, it is not the best place to engage in full-time research, even less when comparing it with specific research and technology facilities which enjoy better funding, better infrastructure and a professional management model which is non-existent in Universities. It is very difficult for a University professor, with a team dedicated to teaching as well as researching, to compete on an equal footing with highly professional groups fully focused on research. Perhaps the most extreme example is that of University professors who, in addition to teaching, are recommended/required to carry out research within the existing University structure, which is practically impossible. Young researchers are aware of this difficulty and, after graduating or even finishing their Ph.D., choose to engage in research at technology centers or companies which value their experience and education.
Therefore, the University has the difficult role of generating knowledge and at the same time witnessing the frustration of scientists who must wave goodbye to their best students who decide to further their research careers elsewhere. The attempts to reinforce research with the creation of renowned and well-selected public figures (as with the Ramón y Cajal Contracts), have become a mirage unable to satisfy the ambitions of University researchers. In Finland it has been proven that the quality of teaching is mainly based on the process of selection of teachers and that, after implementing a strict method of selection of teachers and with the adequate infrastructure, the social status thereof is guaranteed as well as their results. In Spain, the attempt to enhance the dignity of University researchers has not taken hold. The initial staff selection system was well devised but the diversity of situations in each University has taken the Cajal researchers to depart from the original initiative.

In the University we continue to breed researchers and make attempts to engage in competitive science, but at the expense of having to take each and every one of the steps required by the overall process of research activity, i.e., securing funding for paying researchers-in-training, acquire infrastructure, manage funds, train researchers and, more recently, get in touch with companies which may be interested. All these activities must be carried out in an unfavorable environment. In addition, it is necessary to manage time in the classrooms and research time, subordinating work on new projects, meetings and conferences to the teaching agenda. Some Universities, aware of this situation, are beginning to assess their teachers vis-à-vis their research efficiency but it will take time to change the mindset for Universities to give both teaching and researching the same priority. It will also take time to base the criteria for engaging teachers on efficiency and professionalism.

Even though it is true that the new accreditation system for professors proposes minimum standards for being a University teacher (which wasn’t always fulfilled in job applications), it is necessary to establish a quality selection system in each University. In other words, the examiner must assume responsibility for the new teachers he or she engages, to the extent that penalties could be applied if the new teacher does not meet expectations. This is not new. In many North American Universities in which each University Department chooses its new members, the selection committee is also responsible for the results of their selection in terms of efficiency and productivity. This has not been considered in our Universities. No private clinic manager would engage an ophthalmologist who, even having an excellent theoretical background, is unable to utilize current technology or perform a cataracts operation because this would deteriorate the establishment’s reputation. However, the question is: where does the reputation of a University begin? Is it necessary to lose all our clients before addressing the issue? The secret lies in «an adequate selection of qualified and professional staff together with the right conditions for discharging teaching duties». As the University is the generator of trained researchers, breeding ground for new enterprises and source of new ideas, «let us give the Caesar that which belongs to the Caesar».

We have no choice.