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EDITORIAL

The future of Orthopaedic Surgery and Traumatology research in Spain

El futuro de la investigación española en Cirugía Ortopédica y Traumatología

One year prior to receiving the 2008 Nobel in Economics, Paul Krugman, who won the 2004 *Príncipe de Asturias* Award in Social Sciences, emphasizes in his *Essentials of Economics* that, in essence, economics is based on everyday individual decisions[1]—a fact that had already been universally accepted by economists.[2] An individual decision is the choice an individual makes as to what he/she is going to do, which automatically means deciding what it is he/she is not going to do. The economics of individual choice is based on four basic principles: 1) resources are scarce, 2) the real cost of a resource is what one must give up to obtain it (opportunity cost), 3) how much is a decision at the margin (how much for each item), and 4) people respond to incentives, which is understood to be a reward offered to them for changing their behaviour.[1] The significance of this lies in how all the individual choices in a community interrelate.

As a result of the financial crisis and the forecast of its lengthy duration, the future grand reformation of Public Service in Spain —which includes most of the healthcare sector— aims for economic growth based on stronger productivity and competitiveness. Given these basic principles, improving the healthcare economy would depend on citizens and professionals making the right individual decisions. This means it is incumbent upon the government to inform its citizens of how the four principles apply to healthcare: 1) resources are scarce —of course, improving the accessibility of the public healthcare system [Spanish acronym *SSP*] must involve a cost-benefit plan that rationalizes this access; 2) in order to continue improving access to the system, other social programs must be sacrificed (opportunity cost), as was seen in recent cutbacks in the public sector; 3) how much money is put into the healthcare system, how much into expenses for other social programs, and how the government will raise the funds—it is easy to imagine new fiscal reforms; and, finally, 4) what the positive incentives are for the system being utilized and for it not being utilized —this debate surfaces periodically. The words of the great Alfred Marshall are worth considering: Economics does not make political or social decisions—it simply analyses situations on the basis of tests and presents them to the politicians; it is only an instrument for identifying a concrete truth.[1,3,4]

It is also incumbent upon the government to inform *SSP* professionals that resources are scarce—which it does already, though during an election era, just the opposite might be proclaimed in the communications media, regardless of who is in power —and to inform them, in particular, of what they must forego to obtain an incentive and what the incentive consists of. This is what the recent draft legislation on Science[5] does not specify. This bill, which has been in parliamentary proceedings since May of 2010 to replace the 1986 Law,[6] is not a "law of Economics" because, even though it acknowledges that resources will become even more scarce—owing, primarily, to the fact that research budgets, far from being apportioned to the State and the Autonomous Communities as they are currently, will be concentrated on competitiveness in Europe[7] —it is not known what one will have to sacrifice to have a career that combines healthcare with research work, how much of the former and how much of the latter (decisions at the margin), or what the incentives will be and whether they will be competitive with other incentives on the market. The meritocratic career the *SSP* encourages is still an unresolved issue—even more so in light of ever-expanding prospects in the healthcare market outside the *SSP* and public program legislation that, paradoxically, opens up opportunities for the competition. The contrast between the scant percentage of physicians engaged in scientific production and the massive reduction in shifts at public hospitals is only one example of this.

Research and development are the foundation of innovation—the keystone of a productive economy for any country in the western hemisphere. Moreover, quality research is measured by three variables: funds garnered in competitive meetings, bibliometric production and impact, and productive patents. In terms of these three variables,

our specialty has a rather bleak present and a distressingly uncertain future in Spain. One positive report is that the European Union is going to redirect resources to "information-driven" projects that provide data on areas of inefficiency —observational or experimental cohort epidemiological studies are of great importance in our specialty— as opposed to "hypothesis-driven" projects aimed at verifying hypotheses that may, ultimately, have no validity,[7,8] such as the basic stem cell and growth factor research studies. On the other hand, Spain does not make it easy for surgeons to make individual decisions when designing a professional career that would be a valuable contribution to the Spanish Science and Technology System *[Sistema Español de Ciencia y Tecnología]*. Because the new Law of Science gives a place of special importance to scientific societies, they should be the ones to engage in dialogue so that implementation of the Law, through the corresponding decrees, would facilitate a professional career rich in values—and incentives—that would contribute to modernizing and strengthening Spain's *SSP*. The time must come —even if years after the WHO recommended it[9,10]— when scientific societies participate in political decisions through organizing and replacing government research groups and taking a position on government actions.

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