

Scientific Life

Spanish Barriers

Photo: Fotolia / Vibe Images

Being a researcher is a hard way to earn one's living, doing science in Spain seems to be even harder. José L. Neira from the Universidad Miguel Hernández tells of a three-year experiment that uncovered many hurdles for motivated researchers.

Recently, alarm bells started ringing when news from the UK claimed that the new government was planning to impose restrictions on scientists from overseas (*Nature*, 468, 346), although it is well-known that only the most talented scientists can advance the science of the country where they work. Thus, science has no frontiers, and talent has no respect for international borders.... Or has it?

Design and aims of the experiment

Spain never enjoyed the scientific growth and productivity of some other European countries like Germany or the UK. Although substantial efforts have been undertaken in several regions over the last years to improve the situation, most of the Spanish research system is still overrun by civil servants and lacks incentives for excellence. In Spain, each region has the freedom to administer its own research system. Research is mainly carried out either by universities, which are overseen and ruled by the regional governments, or by the Research Council (CSIC), which is currently a national agency with its own rules and regulations.

The two research systems are separated and, even in institutes shared by both institutions, it is nearly impossible for staff to move from one to the other. In fact, the few civil servants living in a region where science is not very much appreciated (the *middle-age region*) and wanting to move to another region or even a

nearby institute in the same region, where a sort of scientific excellence can be found (the *enlightened region* – these are scarce in Spain), have to pass a public exam (called *oppositions*). Thus, our motivated scientists face the bureaucracy of the new region or the new institution and, in addition, they face the internal candidates aiming for promotion; i.e., our scientists face the rampant in-breeding techniques dominating the Spanish research system.

Fed up with poor science

Let's assume our civil servant scientist is fed up with the poor science in his/her institute and its surroundings and he/she wants to move to another region. He/she does not mind whether the move is to a university or to one of the CSIC institutes; moreover, he/she does not mind taking one of the public examinations (again) in order to become a civil servant at the nearby university (research including teaching duties) or at the CSIC institute (research only); all he/she really wants is to have the possibility to conduct good science with the appropriate equipment and in the right environment. What are the perils he/she must face? Will the CSIC or the university welcome him/her? Will they take into account his/her extensive and, in many respects, successful career in the other Spanish region?

We, as scientists trying to answer the above questions, designed the following experiment: a Spanish scientist holding a



In-breeding isn't a totally new concept in scientific research as many lab mice can attest.

Photo: iStockphoto/Amagian

IM to move away from the university, where he was already a full professor, not indicate that IM was a highly problematic person? If that was the case, and there was no proof of the contrary, no one on the panel would vote for IM.

Impossible to value good work

Discouraged, IM tried for an assistant professorship, i.e. a lower position at a different university. He thought, "At least I am in a better position now, and it won't be a problem to defeat other candidates." Wrong! After carefully preparing the lecturing project and describing his future research plans supported by national and international grants, the panel concluded he was not the perfect candidate for this position, simply because he had never lectured a specific course offered only by that university in that particular department in his whole life.

"If no one knows you, hiring you always bears a risk; even if you have an award winning CV, no-one knows if you are going to cause more problems than benefits for the department or the university. Therefore, universities prefer to keep who they have, even if he/she is scientifically, but not personally, worse than other potential candidates, because once someone has obtained a civil servant position, you cannot get rid of him/her," says JG, an assistant professor at the University Miguel Hernandez (UMH), "This is the problem with having a system based on civil servant positions: it is impossible to value good work, because once you are within the system, unless you are strongly motivated, you don't have to show anything."

The CSIC and the regional agencies

IM was really frustrated seeing as he had always thought science worked by merits only. Anyway, he pondered, "Let us try CSIC, where I will at least get rid of the teaching, and, in fact, I will not have to defend any lecturing project." The public exams for civil servant at CSIC also consist of two exercises: the first is to substantiate one's CV; and the second is a detailed description of the proposed future research plans within the framework of the title of the position. The positions IM applied for were equivalent to an associate professorship at any Spanish university.

Again, IM did not get any recognition for his CV and merits, and the internal CSIC-institute candidate got the job. The first-year, internal candidate was related to a former president of the CSIC. GJ, a biochemist and full professor at the institute where the position was going to be placed, justified the decision of the panel as one of its members: "Sometimes CSIC wants to advance by strengthening a group but IM would not have strengthened any existing group. Besides, there would not be sufficient space in the new building as we would have had to allocate space to IM and to the unsuccessful internal candidate because we could not get rid of him/her." Really fed up with the decision and unable to take the case to court – justice is slow and expensive in Spain – IM decided to denounce the situation in the press. In the past, other Spanish people/scientists/journalists had also commented on features of the Spanish research system in international science journals (*Nature*, 453, 26-27). He acted to his disadvantage, as the next applications for CSIC positions would prove.

Family ties and witch-hunting

The following year, he tried for another position at CSIC. This time, none of the candidates had any familiar relationship with any actual and former CSIC authority but there were internal candidates. During the interview, the members of the scientific panel were extremely aggressive, asking questions not related to his CV but to his personal life. As usual, the internal candidate got the position. A spectroscopist, MB, belonging to the CSIC Institute where the oppositions were held was clear, "That is what happens when someone writes things, like IM did, in the media." So, not only does the Spanish research system not reward merits but it punishes those who dare to denounce the unfairness of the system. Thus, the system reminds of the witch-hunting in the USA in the early fifties (cue: Linus Pauling). This situation bothered IM, but he was devastated by the events the following year. He applied again for a position at CSIC and again the internal candidate got the position, even without any background in the advertised field (Chemical Biology). Finally, IM was fully buried when he wasn't awarded any more national research grants, although he had published the results of his group in several inter-

national journals with high impact factor. Fortunately, he had a grant from an international project with European collaborators.

In the end, IM applied for a position at one of the regional agencies, which, in recent years, had started to develop their own independent tenure-track system. At first, IM was happy thinking his merits would finally be acknowledged. However, he became very disappointed when he found out that those agencies only employ scientists with very specific skills necessary for the advancement of particular regional interests. And by chance, the biomedical and biomolecular research that IM had successfully developed in the last ten years did not fit in properly with the biomedical research areas supported by those regional agencies. Thus, the agencies would not consider IM's CV any further in the near future.

The results of the experiment

So what is left for IM after all these years? He had to realign himself to: (i) avoid the risk of not getting Spanish grants; and, (ii) continue working, as happy as he can, with what is left in his laboratory in his *middle-age* region. After all, he is a civil servant belonging to an institution with very little interest in research and with mainly teaching duties. Due to the current crisis, an improvement of the situation is not in sight. His hopes of moving to a better place evaporated after he dared to express his views on the rotten system, and thus, he does not get any recognition for the good work he has done. Well, anyway, at least his monthly



After three years, there was still no happy end to this experiment.

salary is not in danger and his wife will not complain. Although he is fully motivated to do good research, who cares about it? Perhaps a few other guys like him care but even so, is it worth all the effort, when you know you will be paid anyway, no matter how well you do?

I would like to thank all my anonymous colleagues above for sharing their opinions with me. I would like to thank Rodrigo J. Carbajo for helpful suggestions and corrections to an early version of this report, and who is suffering some of the same problems as IM has faced, due to his long-sighted view of the Spanish research system.

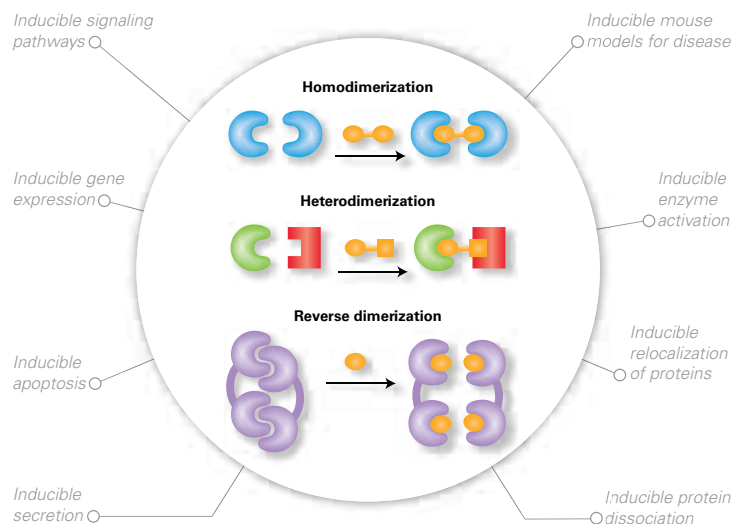
JOSÉ LUIS NEIRA

Instituto de Biología Molecular y Celular, Universidad Miguel Hernández, Avenida del Ferrocarril s/n, 03202 Elche (Alicante).

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