

cil for Economic Competitiveness and Social Renewal revealed that Spain was the taillight of 17 investigated countries. Weak points were the slow implementation of Bologna measures, a lack of responsiveness to the demands of the labour market and an inability to attract foreign students. A 2009 OECD report on tertiary education in Spain raised similar issues, including “inbreeding” in academic recruitment, which prevents an open market for academics.

Career stages at Spanish universities are: PhD candidate/research assistant (Ayudante), postdoc (Profesor Ayudante Doctor), lecturer (Contratado Doctor), associate professor (Profesor B) and full professor (Profesor A). Postdoctoral positions at universities are temporary positions (4 years) and require accreditation by the national evaluation agency, ANECA. Posts as lecturers are permanent but come without the benefits of a civil service position. Professors are permanent civil servants with a high teaching load. As mentioned above, internal recruitment is the rule and further barriers within the academic system for non-nationals include bureaucracy and language, since all job announcements and application forms as well as the majority of lectures are in Spanish.



Spain was one of the last European countries to introduce the three-cycle structure of bachelor, master, doctorate. The Bologna measures and a university reform package, called Ley Orgánica de Universidades, generated massive protest in late 2008 and early 2009. Students claimed that their increasing workload prevents them from meeting their living expenses, as no major grant or loan system seems to be in place. They also fear that public universities may in the long run be privatised and that study fees may increase.

To boost innovation at universities the government last year launched a highly ambitious programme called University Strat-

egy 2015. The aim of the programme is to promote educational and scientific excellence and internationalisation. From the first call, 15 campuses of excellence will be funded with a total budget of about €200 million from the government and regional authorities. Winners will be announced at the end of 2009. Since part of the budget is also reserved for human resources, this means that Spanish universities may, in the near future, also become more attractive to scientists from abroad.

Biomedical research at its best

Outstanding Spanish scientists from abroad have been engaged either to reform old or establish new research institutions. The advantage is that they are able to contribute their knowledge of foreign research systems without having too many ties to established structures back home. Examples include the developmental biologist Izpisúa Belmonte, with a joint appointment at the Centre of Regenerative Medicine in Barcelona and the Salk Institute in La Jolla; the HHMI investigator Joan Massague, the most cited Spanish biomedical researcher and expatriate, with a joint appointment at the Institute for Research in Biomedicine in Barcelona and the Memorial Sloan Ketter-

Interview I: Marcus Buschbeck

“I Feel Fully At Home Here”

Marcus Buschbeck is a German group leader at the brand-new Institute of Predictive and Personalized Medicine of Cancer (IMPPC) in Barcelona. After studying biochemistry he joined the lab of Axel Ullrich at the Max-Planck-Institute for Biochemistry in Martinsried, Germany, for his doctorate. With fellowships from EMBO and the German Research Foundation (DFG) he then moved to Barcelona to Luciano Di Croce’s group at the Center for Genomic Regulation (CRG). In 2008, he was recruited by the IMPPC to start his own independent group looking at cancer epigenetics.



with three groups in different countries and the decision I made was for a particularly good feeling with the young group leader in Barcelona. After my postdoc I had the chance to interview for as many PI positions in Barcelona as in Germany, Switzerland and Austria together. This was due to the fact that during the last years Spain, and particularly Barcelona, have made major efforts to extend their scientific activities. In Barcelona alone several completely new research institutes have been opened. Thus, the number of *de novo* recruitments was just extremely high. When I received the particularly attractive IMPPC offer, I already knew that my wife and my kid enjoy living in Barcelona and would not mind staying. This made the decision to stay quite easy.

What has been your postdoctoral experience at the CRG?

Buschbeck: When I joined the CRG in 2004 it was a very small and had just recently become an institute. The atmosphere was familiar and I think I was literally introduced to every single co-worker at the institute. While doing my bench work it was interesting to see the institute growing. Today the CRG is among the top three research institutions in Spain, which is certainly due to amazing efforts by its co-founder and director Miguel Beato. During my five years at the CRG, it has converted itself from a no-name institution and a risky option for postdocs to a first class institution.

What are your career perspectives?

Buschbeck: My current contract at the IMPPC is limited to five plus five years. This means I have to pass an evaluation after five years. If things work out, I will be promoted from junior to regular group leader and my contract extended for another five years. In addition to my own position, the institute was providing me with generous lab

Why Spain?

Buschbeck: I had learned Spanish in school. That is why Spain was not excluded when I was looking for interesting postdoctoral positions. In the end, I had interviews

ing Cancer Centre in New York; the former director of the Institute for Molecular Biology and Tumour Research at the University of Marburg, Germany, Miguel Beato, who is now head of the Centre for Genomic Regulation (CRG) in Barcelona; and finally the cancer researcher Mariano Barbacid, a former scientist at the National Cancer Institute in Frederick and vice president of oncology drug discovery at Bristol Myers Squibb, now Director of the National Cancer Research Centre (CNIO) in Madrid.

Some new institutions are autonomous when it comes to budgets and recruitment and are assisted by high profile international advisory boards. New organisational structures reduce the administrative and bureaucratic burden. For example, some institutions have been established as foundations with substantial funding by not-for-profit partners in the form of public-private partnerships. Thus, these new institutions serve as prototypes for other Spanish institutes and organisations. Two primary institutions are introduced below.

CRG

The Centre for Genomic Regulation (CRG) is part of the Barcelona Biomedical Research Park. The EMBL in Heidelberg,

Germany, served as a model for its operational structure. It is a dynamic institution offering five-year contracts for junior group leaders with a maximum of four-year expansion. The future goal is to house 36 research groups with about 450 research staff. Currently half of all researchers, including group leaders, postdocs and PhD students are non-Spaniards. Previous international employees include Thomas Graf from the Albert Einstein College of Medicine and Vivek Malhotra from the University of California in San Diego. The CRG has an international PhD programme supported by the La Caixa Foundation. According to Gloria Lligadas of the CRG, a multidisciplinary postdoc programme funded by the EU will start next year. The CRG is home to four winners of the first round for European Research Council (ERC) grants. The institute's research topics range from gene regulation, developmental biology and cancer to bioinformatics and analysis of disease genes. The systems biology programme, headed by Luis Serrano, teamed up with EMBL Heidelberg and this partnership will be supported by MICINN until 2015 with €1.4 million per year. Cutting-edge core facilities including advanced microscopy, genomics and proteomics and access to one of the largest an-

"I do not think that it is more difficult for a foreigner than a Spaniard to obtain national grants."

space, equipment, start up funding and two positions (postdoc and technician). I

also managed to get my first Spanish Ministerial Grant. This is a crucial step, since with the increasing number of scientists in Spain, competition for grants is getting harder every year. An intrinsic limitation of the system is that you are not allowed to hold or to apply for more than one Spanish Ministerial grant at once. Most grant applications can be written in English and I do not think that it is more difficult for a foreigner than a Spaniard to obtain national grants. Any foreigner might even have the advantage of been treated as a beginner.

Do you feel integrated?

Buschbeck: Yes, I feel fully at home here now. And little by little I have also become integrated in the scientific community. When I came here I knew some Spanish and by now I am fluent. For the scientific life it is not necessary to speak Spanish

but it certainly is a prerequisite for social life outside the lab. If you want to fully

dip into the cultural life of Barcelona, you need to speak or at least understand Catalan. From my point of view, the way science is done in Spain is similar to anywhere else. The main working differences come along with the cultural differences. The Spanish spontaneity for instance is sometimes difficult to handle for a German mind. Also the perception of time, organisation and punctuality is just different and the bureaucracy is a topic for itself. Nevertheless, I can highly recommend Spain as a working and living place.

How is the spirit of younger Spanish researchers?

Buschbeck: Of course they are worried in light of the fact that the government is planning to cut down the budget for science. But the motto is: do not panic. Let's wait and see what is coming up. -RS-

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