



Welcome to the CNB

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DIRECTOR

In the past two years we have faced a number of important ups and downs. In 2014, we lamented the passing away of Juan Pablo Albar, in whom we lost a great colleague and the scientist who put our centre on the international map of proteomics research.

To some extent, Juan Pablo's widely known capacity to pursue his goals with unswerving determination also represents the attitude our centre has had to adopt in the face of an unprecedented economic crisis; it would otherwise be difficult to explain how, despite severe cuts in research funding, the CNB has succeeded in preserving its vitality and ability to produce world class science.

When we compare our revenues to the income we had in 2010, we have withstood a net reduction of 10 million euros over the past four years. The efforts of our scientists to pursue their research with these reduced resources have nonetheless made it possible to maintain the quality of our centre's work. For the biennium 2013-2014, the Scopus database registered the exceptional number of 528 scientific publications signed by CNB scientists, 489 in JCR-indexed journals. This represents both a quantitative and qualitative increase. In 2014, 44% of these publications corresponded to the top 10% of high-impact journals in their respective fields of knowledge, which exceeds the centre's five-year average by 8 percentage points.

Highlights such as the ERC Advanced Grants to Víctor de Lorenzo and Víctor Muñoz, the inclusion of Roberto Solano in Thompson Reuter's 2014 ranking of the top 1% of the world's most highly-cited scientists, or the award of the Mexico Prize for Science and Technology 2014 to Carlos Martínez-A, further reflect the scientific leadership of our researchers.

It is also a great satisfaction to see our in-house technology transfer office, established in 2010, has begun to yield returns, evidenced by the filing of eight new patents and the signing of eight license agreements in the past two years. In addition, three young CNB scientists put their business ideas into practice. Antonio Ramos founded Proteobotics, a proteomics data analysis company, distinguished with the 2014 Innovation Award by the Alberto Elzaburu Foundation. Carlos Óscar Sorzano and Lucas Sánchez initiated their entrepreneurial activities as founders of the consulting firm KineStat Pharma and the science promotion and publicity agency Scienceeed, respectively.

The organisation of 288 seminars, 38 international conferences and workshops, as well as a 4-week practical summer course for undergraduate students, training of more than 200 master's degree and PhD students from 24 different countries, and the defence of 84 doctoral theses over the last two years are only a few of the numbers that illustrate the rich academic life at the CNB. We encourage the inquisitiveness of the younger members of our society by participating in the annual Spanish Science Week as well as other science fairs and events. Through our programme of guided visits to our laboratories by high schools and other groups, we promote scientific literacy among young people and foster the interest of the next generation of scientists.

We can also be very proud of our accreditation in 2014 as one of the eight Severo Ochoa Centres of Excellence in life sciences and medicine. This distinction recognises the contributions of hundreds of present and past CNB members that shaped the CNB over more than two decades. It is the acknowledgement of the collective effort of the current team of more than 600 people, who depend critically on the quality of the work carried out by each of the others in their research

groups and scientific services, in management, administration, technical support, maintenance and other services.

The benefits of the Severo Ochoa award go well beyond its immediate economic impact. In addition to a concession of 4 million euros, we qualified for two specific calls that grant nine PhD fellowships, six financed by the Spanish government and three by the La Caixa Foundation. In a pilot project, the Women for Africa Foundation selected our centre as one of several prominent institutions that will support two 6-month sabbatical stays of female African scientists. The flexibility of the Severo Ochoa grant has also enabled us to provide the necessary co-financing quota to obtain funding from the European Regional Development Fund, which we will use for the urgent renewal and update of the centre's scientific equipment, for a total value of 3.3 million euros.

There is no doubt that the Severo Ochoa award is associated with many very welcome benefits, but they can only mitigate the effects of years of severe cuts in research funding. A particular challenge for our centre will be the renewal of our scientific staff. The mean age of our group leaders is currently 53 years, and some of our most prominent scientists will retire in the next couple of years. In addition, the severely reduced public employment offer has not allowed career consolidation for many scientists who have been doing excellent research at the CNB for years.

I hope that the joint effort of the 20 Severo Ochoa Centres of Excellence, eight of which form part of the CSIC, can convince our administration and our government that to be internationally competitive, apart from a substantial increase in research funding and provision for human resources, we need to put an end to our struggle against the windmills of excessive bureaucracy. Far from the aims of a scientist's activity, these obstacles jeopardise our efforts with incomprehensible hiring restrictions, unpredictable career tracks, and lack of continuity and long-term vision in research funding.

Although this foreword should limit itself to events at our centre in 2013 and 2014, it is impossible to conclude without expressing, in the name of all of us at the CNB, our deepest appreciation and gratitude to everyone whose exemplary commitment helped to avoid the potentially disastrous consequences of the fire that destroyed our low voltage power plant on 14 February 2015, in which we came very close to losing the invaluable results of many years of research. Our aim for the near future is to implement additional prevention and security protocols, and to obtain the personnel needed to safeguard our scientific patrimony.

It is important that we transmit to our authorities the need to strengthen our institutions and our scientific system. Achieving this goal will very much depend on the support we receive from our administration, our government, and our society, necessary for our efforts to improve health, agriculture and the environment.

Enjoy browsing through the pages of the CNB 2013-2014 report!

Note: The technical approach of this scientific report might be complex for non-specialists. For this reason, we have published a small booklet in Spanish and in English that explains our work at the CNB, why it is important for society and is worth funding. If you visit us, ask for a copy, or read it online at the hyperlinks below.

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