



Foreword

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Director

One of the main strategic goals of the CNIO from the very outset has been to implement a Clinical Research Programme. On June 17th, The Minister of Science and Innovation (MICINN), Cristina Garmendia, and the President of the Board of Directors, Carlos Martínez-Alonso, signed a formal agreement with the President of the Regional Government of Madrid, Esperanza Aguirre, and the Consejero of Health, Juan José Güemes, to establish such a research programme at the Hospital Universitario de Fuenlabrada (HUF). To direct and coordinate this Programme we recruited Manuel Hidalgo in April, 2009. Manuel has spent more than 12 years in the USA where he was Co-Director of the Gastrointestinal Oncology Program, the Sidney Kimmel Comprehensive Cancer Center at Johns Hopkins University, Baltimore (USA). The CNIO Clinical Research Programme will focus on early phase clinical trials using novel drug candidates selectively against key molecular targets directly involved in the development of human tumours.

The Programme will be housed in a brand new building of about 5,000 m² exclusively dedicated to oncology patients that is expected to be completed by the second half of 2010. Part of the building is already operational and the Radiotherapy and Diagnostic Imaging Units are already up and running. The CNIO is currently installing state-of-the-art PET-CT and MRI equipment. The top floor will be exclusively dedicated to laboratory space and will house a Deep-sequencing Facility, a Biomarker Research Unit and a GCLP laboratory for molecular diagnostic purposes. I would like to take this opportunity to thank the Gerente (General Manager), Medical Director and Head of the Oncology Department at the HUF for their unconditional support in helping us to implement this project. This Programme will also include Associated Units in collaboration with other hospitals. I am convinced that this Programme will become one of the most competitive clinical research programmes in Europe in the near future. Funding has been obtained through a special Call (*Convocatoria de Acción Estratégica en Salud*) of the National Plan for R&D (*Plan Nacional de I+D+i*) for 2008-2011 and from a generous grant from the *Fundación Caja Madrid*.

On September 29th, I announced my desire to step down as Director of the CNIO and to continue working as Head of the Experimental Oncology Group, a position that I have held since the creation of the CNIO back in 1998. Although the CNIO still has space and resources to hire a few more research groups, I feel that one cycle in the life of the Centre is now complete, especially after the establishment of the Clinical Research Programme, and now is the time for

somebody else to take the lead. I am certain that the CNIO will continue being a centre of excellence regardless of who is at the helm. A Search Committee headed by Julio Celis, Chair of our Scientific Advisory Board (SAB) and made up of the three CNIO Vice Directors and three additional SAB Members, Mike Bishop, Joan Massagué and Anton Berns, will be in charge of identifying a short list of candidates to be presented to the Board of Directors. I will continue to serve as Director until a new Director has been identified. I am confident that the new Director will enrich the Centre bringing new ideas and new challenges for us all.

On December 11th, we were saddened by the news that Carlos Martínez-Alonso was no longer Deputy Minister and, as a consequence, had to relinquish the position of President of our Board of Directors. Carlos has been a long time friend and colleague and has demonstrated unabated support for the Centre even during difficult economic times. He has been replaced as Deputy Minister by Felipe Pétriz, Professor of Applied Mathematics at the University of Zaragoza. Felipe Pétriz is not foreign to top managerial positions since he was previously Director General of *Política Universitaria* (University Policy) at the Ministry of Education and *Rector* (Provost) of the University of Zaragoza. He has assured us that, as President of the Board of Directors, he will continue supporting the CNIO.

During 2009 several young, talented people joined the CNIO as Junior Group Leaders. These include Nabil Djouder, until recently a Senior Postdoc with Wilhelm Krek at the ETH in Zurich (Switzerland), Francesco Gervasio, an "Ober-Assistent" with Michele Parrinello, also at the ETH in Zurich, Daniel Lietha, a Postdoctoral Fellow with Michael Eck at the Dana Farber Cancer Institute (Boston, USA) and Santiago Ramón-Maiques, who trained with Wei Yang at the NIH, Bethesda (USA). Nabil joined the CNIO last summer to head the Growth Factors, Nutrients and Cancer Junior Group within the BBVA Foundation - CNIO Cancer Cell Biology Programme. The other recruits are heading Junior Research Groups in our Structural Biology and Biocomputing Programme. Francesco will focus on biocomputational research, an area where he has already made significant contribution to the field of computational biophysics by developing various methods to increase the time-scales accessible to atomic scale simulations. Daniel and Santiago will join forces with Guillermo Montoya to build a strong programme in structural biology. Daniel will continue focusing on the focal adhesion kinase FAK and Santiago will explore the structure of RAG recombinases. The fact that three of these new recruits, Nabil, Francesco and Daniel, are

foreign nationals attests to the ability of the CNIO to attract young international talent to our country.

Our recruiting efforts during 2009 were not limited to junior scientists. In addition to Manuel Hidalgo, we have been fortunate to recruit Christopher Heeschen to lead a Group on Stem Cells and Cancer as part of the new Clinical Research Programme. Chris trained as a Research Fellow at Stanford Medical School (USA) before joining the Faculty of the Goethe University in Frankfurt (Germany) in 2001. In 2004, he became Professor of Medicine at the Ludwig-Maximilians University in Munich (Germany), his last appointment before joining the CNIO in January 2009. In spite of his young age, Chris is already widely recognised as a leader in the field of stem and vascular cell biology as well as in the study of pancreatic cancer stem cells. He has recently received the Richtzenhain Award from the German Cancer Research Centre (DKFZ) and is part of the select group of less than 200 European scientists to have received an Advanced Grant from the European Research Council. Chris is another example of the ability of the CNIO to attract top international talent to our R&D system.

We have also strengthened our confocal microscopy and flow cytometry core activities within our Biotechnology Programme. To this end, we promoted Diego Megías to head a new Confocal Microscopy Core Unit. To lead the new Flow Cytometry Unit, we recruited Lola Martínez, formerly responsible for cytometry at the Institute for Cancer Research in London (UK). We have also recruited Pilar Pizcueta, formerly a pharmacologist at Almirall Inc., to head a Section on *In Vivo* Target Validation within the Experimental Therapeutics Programme. 2009 also witnessed the departure of a faculty member, Amancio Carnero. Amancio left in the summer of 2009 to accept a group leader position at a new research institute in Seville. He first led the drug discovery group sponsored by Eli Lilly to later become Head of the Assay Development Section in 2005. We wish him the best of luck in his new position.

I would like to use this Foreword to express our gratitude for the continued support of our philanthropic partners. Philanthropy is critical to our efforts as a research centre of excellence. We thank the *Fundación Caja Madrid* for their continued support since the early days of the CNIO. The *Fundación Caja Madrid* has contributed 3.6 million EUR over the next five years to facilitate the implementation of the Clinical Research Programme. Likewise we are grateful to the *Fundación BBVA* for providing support to the BBVA Foundation - CNIO Cancer Cell Biology Programme led by

Erwin F. Wagner (2.5 million EUR over five years), and to the *Fundación Banco de Santander* for its support of the bladder cancer research efforts led by Núria Malats (150,000 EUR over four years). The support of the *Fundación "la Caixa"* (10 annual fellowships for PhD students) and *Fundación Caja Navarra* (4 annual fellowships for postdoctoral fellows and post-residents) is allowing us to attract some of the brightest young scientists from all over the world to carry out their pre-doctoral and post-doctoral training at the CNIO. We really appreciate their support. Finally, during 2009 we started a new programme for short-term stays (3-6 months) by renowned visiting scientists sponsored by *Catalana Occidente*. David Goldgar, Professor of Molecular Epidemiology at Utah University (Salk Lake, USA) was our first visitor.

Interestingly, there is a general perception that the CNIO receives more direct resources from the government than other institutions. Budget figures do not support this general belief. In 2009, the CNIO received 24.7 million EUR as direct support from the Ministry of Science and Technology (MICINN). This amount represents a total of 40,962 EUR per full time employee (FTE) working at the CNIO. As a comparison, the Spanish Research Council (CSIC) received as direct funds from the MICINN in 2008 (latest available figures) 448.7 million EUR for a total of 11,681 FTEs, that is 38,415 EUR per FTE. Thus, the direct support received by the CNIO from the MICINN is only 6.2% higher. These resources, along with those obtained by the CNIO faculty in competitive national and international Calls, are allowing us to maintain the operative levels to remain one of the most competitive research centres in the world.

According to a recent publication by the SCImago Institutions Ranking (SIR, www.scimagoir.com), the CNIO ranked 21st in the Field Normalized Citation Score among more than 2,000 institutions dedicated to scientific research all over the world and 9th among those dedicated to cancer research. Although we are proud of these rankings, unfortunately, they are based on overall publications giving equal value to collaborations as to publications primarily generated at the institution. When we only considered the latter (publications in journals with an impact factor >15 only for the 2006-2008 period), the CNIO moved up the ladder, appearing between the Salk Institute and the Cold Spring Harbor Laboratory (USA) - two of the most renowned research institutions in the world, see page 189 in this Scientific Report. I would like to thank all the CNIO personnel for their effort and dedication in making our Centre a highly competitive research institution.