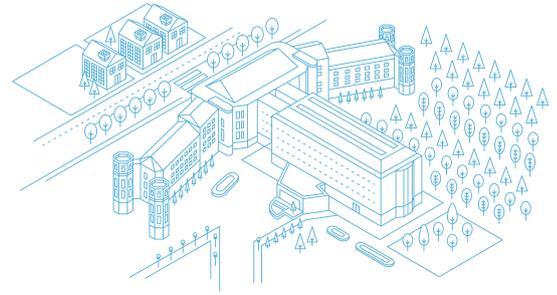


CNIO FRIENDS

newsletter

Latest news from the Spanish National Cancer Research Centre



 COLUMN

 CNIO SCIENCE NEWS

Carry on

Close to reaching a total of one thousand friends, we feel deeply grateful and responsible for the trust placed in us. We want to respond to your generosity and the only way we can do this is through research, research and more research. And that is what we are doing. The Centre's scientific production remains at a high level, many of our papers are published in high-impact journals, and we are making significant contributions to the field of cancer research. Despite the difficulties, we have managed to maintain our top position among the world's leading cancer research centres. Those of you who are *CNIO Friends* have also contributed to this success.

Every time someone joins the initiative, beyond their specific contribution, we receive their encouragement and support. And that is just as important to us. Small signs of personal recognition giving us the strength we need to continue to move forward each day.

We have recently launched a new call for postdoctoral contracts, funded by *CNIO Friends*, though which we will recruit two scientists over the next two years; these are in addition to the two contracts from the previous call and a third one that we launched together with the Juegaterapia Foundation. A total of five people who are (and soon will be) researching cancer thanks to you.

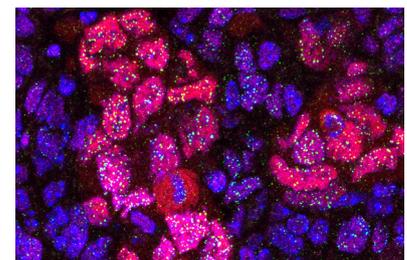
This is the reason we can carry on.

—MARIA A. BLASCO
Director



During the *in vivo* reprogramming process, cellular telomeres are extended due to an increase in endogenous telomerase. This is the main conclusion of the results presented in a paper published in *Stem Cell Reports* by a team from the Telomere and Telomerase Group at the CNIO, in collaboration with the Tumour Suppression Group. Their observations show, for the first time, that the reprogramming of living tissue results in telomerase activation and telomere elongation; thus reversing one of the hallmarks of aging: 'the presence of short telomeres'. "We have found that when you induce cell dedifferentiation in an adult organism, the telomeres become longer, which is consistent with cellular rejuvenation", explains Maria A. Blasco, head of the cited group and leader of this research. This lengthening of the telomeres is

an unequivocal sign of cell rejuvenation, which has been quantified for the first time here in a living organism. "What we have seen for the first time is the induction of telomerase *in vivo*," explained Blasco and Rosa M. Marion, the leading authors of the paper. "To date, we do not know of any study that describes the induction of endogenous telomerase by defined transcription factors in the context of adult tissues," say the authors (1).



 OUR CENTRE

We felt particularly especial that lovely evening and greatly appreciated by those present. The presentation of the book *Excelentes*, wonderfully guided by Mago More, the master of ceremonies, was a joy to watch. Amparo Garrido – visual artist and the author of the photographs– and Monica G. Salomone – science journalist and writer of the protagonists' stories –shared their experiences during the creative process, as well as their relationship with the protagonists of the book; notable women and men who have visited the CNIO and have shared with us the most fascinating and remarkable achievements. Maria A. Blasco also participated in the event and reminded us that the book's purpose has a charitable component, as the proceeds from its sale will go to *CNIO Friends*. The icing on the cake was provided by the comedian José Mota, who wanted to share this occasion with us. The book, by the way, is on sale in the



Mago More, Maria A. Blasco, José Mota, Amparo Garrido and Mónica G. Salomone./ CNIO

bookstores of El Corte Inglés and VIPS. In recent months, we have had other reasons to rejoice. In addition to the fact that we make a new *friend* every day, it is noteworthy to mention that we have formalised an agreement with ASISA Vida. This insurance company has launched a product that offers coverage for women (with regards to specific benefits against cancer) and will donate 5% of the proceeds derived from the insurance policies to fund cancer research at the CNIO.



‘Excelentes’: the chance to meet people who have done extraordinary things

On 9 February, we presented *Excelentes*. The book contains the portraits – prepared by the visual artist Amparo Garrido – of 20 of the most Distinguished Speakers hosted at the CNIO in recent years. The stories behind the pictures are written by the talented science journalist Mónica Salomone. We interviewed both authors.

What can we discover about these Excellent people in your book?

A.G. We can discover the uniqueness with which each one looked us in the eye. The way in which they smile, their hands... An image is a text; therefore, we can read many things that are difficult to put into words.

Can getting to know the person rather than the figure help to make people more aware of Science, for example?

M.G.S. In my experience, what matters most to people is what happens to other people. This principle can lead to Big Brother-type content, in other words, popular reality shows that are not usually directed towards raising public awareness of science. But the principle remains valid, so why not use it to our advantage? It’s like gene therapy: the virus that infects is not what really matters, but it is essential for the gene that has to do the work in order to reach its destination. In *Excelentes*, we have personal experiences, motivations, thoughts... because they are interesting in and of themselves, of course, but also provide a powerful avenue for delivering *scientific* content to the readers in a pleasant and, therefore, more effective manner.

Mónica G. Salomone
Amparo Garrido



What led you to take part in an initiative like this one?

A.G. I’ve always agreed with Maria Blasco’s view of bringing science closer to society and trying to change the typical image or idea of scientists as very rational people, highly dedicated to their work and, therefore, beyond the most common interests and emotions... This book is an opportunity and a challenge to get to know them better, as vulnerable people, but excellent at the same time.

M.G.S. The main driving force is personal curiosity. The protagonists of *Excelentes* are people who have done extraordinary things: they have opened up avenues for exploration to phenomena and events that were unknown until they unveiled them, they have created institutions or organisations that have had a social impact, and they have contributed to the advancement of society. This is the case – although it may seem to be grandiloquent –, and, personally, I can’t help but feel the desire to get to know them better. Working on *Excelentes* has allowed me to do so.

And then, of course, there is the impulse of wanting to share a good story with others, a story that can also help. The idea that this book can help society to understand the research that is being conducted at the CNIO is enormously satisfying.

PROFILE



Nuria Oliver
Data-Pop Alliance

In the mid-1980s, the cutting edge technological revolution was centred at the Massachusetts Institute of Technology’s (MIT) Media Lab. That is precisely where, one decade later, this telecommunications engineer from Alicante pursued her doctorate. Determined to explore the field of artificial intelligence and human-computer interaction, Nuria Oliver has worked on the cutting edge of science fiction for years, developing computational models of human behaviour,

intelligent user interfaces, or designing and building prototypes of wearables that many people use today without a second thought. Some of the things that make our daily lives easier today and others many people would find it difficult to do without, originated from her ideas. Without abandoning her research into how mobile phones can help us to improve our lives individually, Oliver recently joined Data-Pop Alliance; a new company that focuses on the use of big data to improve society’s quality of life, as she explained during her Distinguished Seminar on 17 February. She made this presentation, of course, using her mobile phone, which “is the most widespread technology in the history of mankind” and an item with “the potential to know a lot about us and to help us in many ways throughout the day”. However, we need to develop tools and analysis techniques to give meaning to these data. And Oliver is working on that, too.

INVITED SEMINARS

DISTINGUISHED SEMINARS

13 JANUARY
ELAINE FUCHS
Howard Hughes Medical Institute (USA)

20 JANUARY
RAUL MOSTOSLAVSKY
Harvard Medical School (USA)

27 JANUARY
BENJAMIN L. EBERT
Brigham and Women’s Hospital (USA)

17 FEBRUARY
NURIA OLIVER
Datapop Alliance (USA)

WOMEN IN SCIENCE OFFICE SEMINARS

10 JANUARY
MARÍA ÁNGELES DURÁN
Center for Human and Social Sciences (Spain)

31 JANUARY
BELÉN YUSTE Y SONNIA L. RIVAS-CABALLERO (Spain)

28 FEBRUARY
TERESA JURADO Y MARIANO NIETO
PPIINA (Spain)

