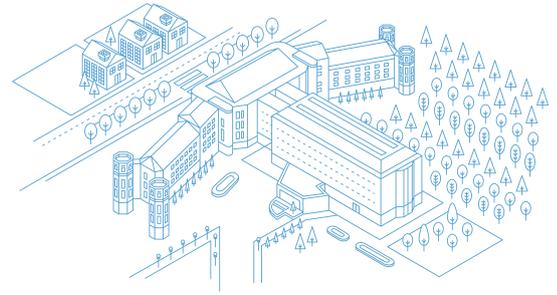


CNIO FRIENDS

newsletter

Latest news from the Spanish National Cancer Research Centre



 COLUMN

 CNIO SCIENCE NEWS

On the starting grid for 2019

It gives me great pleasure to share with you the fruits of a project that after two years of dedication and effort it has culminated in a new website for our Centre: a renewed virtual space that we hope will bring us closer to society, because we firmly believe that our work only makes sense if it is understood and valued by those who it benefits.

I would invite you to explore our new webpage at www.cnio.es/en. You will also see that CNIO Friends has a very prominent presence on the site.

This past year has brought us a great deal of satisfaction, as we have remained at the forefront of international cancer research, with breakthrough discoveries in brain metastases, pancreatic tumours, lung, breast and prostate cancer... We have made so much progress in understanding the basic biology of these tumours as well as in the development of novel and more efficient therapies. In 2018, we have also expanded our outreach activities aimed at bringing science closer to society, with initiatives such as 'Binomio', a Dialogue between Science and Art, CNIO & The City, our participation in European Researchers' Night and Science Week, and the celebration of World Cancer Research Day at Madrid's City Hall.

We are looking forward to starting the New Year so that we can continue to do research, because research is our way of putting an end to cancer.

I wish you all a very happy 2019.

—MARIA A. BLASCO
Director

The most aggressive form of prostate cancer, castration-resistant, can be treated with taxanes or with hormonal treatments, but there have been no comparative studies between the two therapies to decide which one to use. Now, a study co-led by researchers from the CNIO Prostate Cancer Clinical Research Unit has defined a biomarker that, through a liquid biopsy, can determine which of the two will prolong the survival of each patient (1). The H12O-CNIO Haematological Malignancies Clinical Research Unit has presented a new methodology that identifies acute myeloid leukaemia tumour cells, undetectable using other methods, and thus enables doctors to predict the risk of relapse with a high degree of reliability (2). An international clinical trial led by the H12O-CNIO Lung Cancer Clinical Research Unit,

substantially broadens the group of lung cancer patients who might benefit from immunotherapy. The trial focuses on advanced stage metastatic squamous cell carcinoma and demonstrates that immunotherapy, jointly administered with conventional chemotherapy, significantly increases patient survival (3). CNIO's Melanoma Group, in collaboration with the Hospital 12 de Octubre, has found that there is an order to the progression of melanoma metastasis, which is not as chaotic as previously believed, and it seems to be coordinated by the protein p62. In addition, the researchers have discovered that another protein, FERMT2, is involved in metastasis. Both proteins could become prognostic markers of the evolution of this disease (4).

 OUR CENTRE



Alfonso Cordero (student) and Cristina Tejado (researcher), at the CNIO stand during the GEPAC Congress. /GEPAC

SOMMa alliance affiliated centres - Severo Ochoa and Maria de Maeztu Centres and Units of Excellence - met on 15 November at the CNIO to hold the Congress '100xCiencia.3: Building bridges between science and society'.

The event focused on the importance of society's participation in science and featured a roundtable discussion where the political

parties PSOE, PP, Podemos, Ciudadanos and PdCat discussed science policy and agreed on the need to implement short-term measures to improve the science and innovation system.

True to its commitment to raise awareness about cancer research, CNIO was present at the 13th Congress of the Spanish Group of Cancer Patients (GEPAC), which was held in Madrid, under the title 'Great stories start here...'. Throughout the weekend, several researcher-volunteers met with patients, family members and other attendees, answering their questions, listening to them and providing information about the Centre and the latest research around this disease. By participating in this activity, CNIO is seeking to bring together the two ends of an extensive chain that starts with researchers and ends with the patients.



“CNIO’s research discoveries have influenced thinking about cancer in many ways”

On the 10th edition of the Visiting Researchers’ Programme run by the Jesús Serra Foundation (from the Catalana Occidente group), the CNIO is hosting a sabbatical for Scott Lowe, Chair of the Cancer Biology and Genetics Program at the Memorial Sloan Kettering Cancer Center (MSKCC), one of the most prestigious and advanced cancer research centres in the world. Lowe, who also chairs the Geoffrey Beene Cancer Research Center, is a member of CNIO’s External Scientific Advisory Board.

Why did you choose the CNIO for your sabbatical?

I have a strong appreciation for the CNIO and the research conducted by its faculty. Over the years, I have been colleagues with many CNIO faculty members during their time as postdocs, and have also had several CNIO student perform their postdoctoral studies in my group. I also serve on the Scientific Advisory Board of the institute.

As a consequence, I was very excited when it became possible to regularly visit the institute through a sabbatical funded by the Jesús Serra Foundation.

What do you hope to achieve over the following months at CNIO?

I plan to use my time at the CNIO to think more deeply about science and develop new collaborations with CNIO faculty, primarily in the Cell Biology and Molecular Oncology Programs. I hope to spend time with students, postdocs and faculty alike, attend lab meetings and seminars, and through these interactions get new ideas for my own research and to initiate mutually beneficial collaborations. I have already had numerous discussions with faculty that have influenced the way I think about my own work. As examples, I have



Scott Lowe
Memorial Sloan Kettering
Cancer Centre

Photo: CNIO

had nice interactions with Francisco Real [Epithelial Carcinogenesis Group] to consider collaborative efforts in the area of pancreas cancer, and with Juan Méndez [DNA Replication Group] and Marisol Soengas [Melanoma Group] on how some of the tools we have developed in our lab might benefit their work.

You are coming from one of the world’s leading cancer centres. How do you compare the research carried out at the CNIO with what is done internationally?

There is no doubt that the CNIO is at the forefront of cancer research worldwide, and its research discoveries have influenced thinking about cancer in many ways. Over the last decade, the genetics of cancer has been unraveled, and there is a much greater appreciation of the role the tumor microenvironment plays in tumor behavior, and this has produced new strategies for targeting specific cancer subtypes therapeutically. CNIO scientists have been at the forefront of exploiting our knowledge of cancer to develop new concepts for cancer therapy. To support this work, the CNIO has world-class core facilities that allow its faculty to take advantage of cutting-edge technologies or services that enable research to be performed on the highest international levels.

PROFILE



Photo: Mikel Mtz de Trespuentes / UPV/EHU

Marta Macho
University of the Basque Country

On December 11, Marta Macho, associate professor at the University of the Basque Country (UPV/EHU), participated in the seminars of the CNIO Women in Science Office (WISE). In her talk, she addressed the dilemma facing many women professionals, who are trapped between

the sticky floor (the feeling of guilt for not doing the caregiving tasks traditionally attributed to women) and the glass ceiling (the invisible barrier that prevents job growth).

Macho holds a PhD in Mathematics from Claude Bernard University in Lyon (France). She participates in science outreach activities in universities, scientific institutions, and cultural and teaching centres. She collaborates in numerous dissemination platforms and is the editor of the Women with Science blog, part of the UPV/EHU University Chair for Scientific Culture. She received the 2015 Equality Award from the University of Alicante, and in October of that year she was awarded an RSME medal at the first edition of this initiative. In 2016, she received the Emakunde Equality Award, presented by the Basque Government.

INVITED SEMINARS

DISTINGUISHED SEMINARS

23 NOVEMBER
NICOLAS WINSSINGER
University of Geneva (Switzerland)

30 NOVEMBER
CAETANO REIS E SOUSA
The Francis Crick Institute (United Kingdom)

21 DECEMBER
JONATHAN KIPNIS
University of Virginia (United States)

WOMEN IN SCIENCE OFFICE SEMINARS

11 DECEMBER
MARTA MACHO
University of the Basque Country (Spain)

