SCIENTIFIC SEMINAR

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CIC bioGUNE

Molecular basis of cancer aggressiveness

Friday,
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Atrio 800
12.00H

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The ability of cancer cells to adapt to changes in the microenvironment will determine their chances of survival. This process of cellular transformation will require the coordination of transcriptional programs with signaling and metabolic pathways. Since I joined CIC bioGUNE in 2011 I have been working to elucidate some aspects of this process of cellular reprogramming.

During my postdoc, I addressed the study of cancer aggressiveness in two different models, prostate, and breast cancer. I have uncovered how the function of the nuclear receptor PPARD is not dictated by ligand-mediated activation in prostate cancer. In breast cancer, I have studied how a protein called PML can regulate both cancer-initiating cell capacity and cellular ageing.

At present, after 10 years of collaborative research with Basurto Hospital we have started a large project to investigate a poorly characterized biological entity in prostate cancer. We aim to identify molecular cues underlying castration-naïve metastatic prostate cancer, which accounts for more than 50% of prostate cancer related deaths in Europe. We have performed transcriptomics analysis of these patients to search for drivers of the disease. Also, we are developing new strategies to model this metastatic prostate cancer in the lab.

In my talk, I will present my career path and how I have integrated my expertise to study different aspects of cancer aggressiveness from transcriptional programs to signaling and metabolic pathways.