OSCAR FERNÁNDEZ-CAPETILLO
Vice-Director

“During 2018, our scientists made significant advances in understanding how cancer originates, develops and progresses into a metastatic disease.”

The scientists at CNIO have one more year made many important contributions that keep us at the forefront of biomedical research. We have discovered barriers that limit brain metastasis, which could potentially be exploited to limit this phenomenon. We have also identified a novel connection between cancer and differentiation, opening up new avenues for the treatment of pancreatic cancer. We have identified genes that can drive carcinogenesis or suppress it depending on the context, and have revealed how some cancer drivers might be involved in the development of melanoma. We have identified new biomarkers of prognosis for breast cancer, and confirmed the relevance of DNA repair deficiencies in prostate cancer. We have created new tools to model cancer in cells or animals, and obtained important insights as to how our genome is spatially organised. We now also know that a gene therapy based on telomerase expression does not promote tumorigenesis, an important safety check on the development of this technology for the treatment of age-associated pathologies. While necessarily incomplete, this snapshot provides a quick panoramic view that illustrates the top-quality science that is constantly being produced by our scientists. This success is the combined outcome of the hard work carried out by all our research groups, with the instrumental help of the Biotechnology Units and all the personnel that supports our daily activities. My sincere thanks to all of you.