

New evidence for the usefulness of "avatar" mice for cancer patients

Madrid, January 2012 - The *Journal of Clinical Oncology* publishes this month a study led by Manuel Hidalgo and his team from the CNIO. In this work, CNIO scientists provide new evidence for the usefulness of "avatar" mice for personalized treatment of cancer.

Manuel Hidalgo's team has pioneered the use of "avatar" mice for the treatment of cancer. Scientists are able to grow the original cancer freshly collected from an individual patient in a large number of mice, which can be considered "copies" (hence the word "avatar") of the patient's cancer. These "avatar" mice are then treated with several available anti-cancer agents and this allows to predict which treatments will be effective and which ones will not against the particular cancer of a given patient.

In the present report, Dr Hidalgo and his group present the case of a young cancer patient (with adenoid cystic carcinoma), whose cancer was refractory to the standard treatments for this type of cancer. When this occurs, it is usual to seek for treatment with experimental drugs whose efficacy has not been fully established yet. However, a problem found by oncologists is that there may be more than one possible experimental treatment and no criteria for choosing one or the other.

Using "avatar" mice that carried the tumor from the mentioned patient, it was possible to determine that the combination of two experimental drugs (an inhibitor of the IGF1R protein and another one of the EGFR protein) was effective blocking the cancer in the "avatar" mice of this patient. Based on this information, the patient was treated with the combination treatment that was effective in the "avatar" mice achieving blockade of the disease for 6 months.

You may access the full article by visiting the following webpage:

<http://www.ncbi.nlm.nih.gov/pubmed/22184402>