Rodent models: what is their importance for cancer study?

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Cancer is one of the most frequent diseases worldwide, accounting for approximately 10 million deaths in 2020. The most common cancers in 2020 were: breast, lung, colon and rectum, prostate, skin, and stomach. Cancer arises from the conversion of normal cells into initiated cells as a result of the interaction between intrinsic (genetic) and extrinsic factors, namely physical agents (ultraviolet radiation), chemical agents (asbestos, components of tobacco smoke, arsenic) and biological agents (*Helicobater pylori, Schistosoma haematobium*, hepatitis virus). Animal models are very useful to understand and follow several diseases, including cancer. In this way, *in vivo* studies are essential to improve and discover new strategies to prevent and treat cancer more effectively. This presentation intends to describe the rodent models available for cancer study, highlighting their advantages and disadvantages, as well as their potential in the evaluation of several drugs and natural compounds for cancer treatment.

Keywords: carcinogenesis, mice, rat

Biography

Ana Faustino holds a Master in Veterinary Medicine and a European PhD in Veterinary Sciences. Animal models of cancer, tumoral angiogenesis and imaging are her main areas of interest. She has collaborating in several Financed Research projects. The results of her works were published in more than 250 publications in several formats. She received several prizes of scientific merit and press honours. She participated in several international and national meetings. She is editorial member of several scientific journals and reviewer of more than 300 manuscripts. She is Guest Editor of two special issues in Veterinary Animals and in Life.