

Study of the Effect of the Continuous Electric Field on the Rd Cancer Cell Line by Response Surface Methodology

Authors : Radia Chemlal, Salim Mehenni, Dahbia Leila Anes-boulaahbal, Mohamed Kherat, Nabil Mameri

Abstract : The application of the electric field is considered to be a very promising method in cancer therapy. Indeed, cancer cells are very sensitive to the electric field, although the cellular response is not entirely clear. The tests carried out consisted in subjecting the RD cell line under the effect of the continuous electric field while varying certain parameters (voltage, exposure time, and cell concentration). The response surface methodology (RSM) was used to assess the effect of the chosen parameters, as well as the existence of interactions between them. The results obtained showed that the voltage, the cell concentration as well as the interaction between voltage and exposure time have an influence on the mortality rate of the RD cell line.

Keywords : continuous electric field, RD cancer cell line, RSM, voltage

Conference Title : ICBAB 2022 : International Conference on Bioengineering and Advanced Biotechnology

Conference Location : Istanbul, Türkiye

Conference Dates : December 20-21, 2022