Effect of natural compounds on skin cancer cell line

Thais P. Pivetta¹, Tania Vieira², Jorge C. Silva², Paulo A. Ribeiro¹, Maria Raposo¹

 ¹ CEFITEC, Physics Department, NOVA School of Science and Technology, Universidade Nova de Lisboa, Campus de Caparica, 2829-516, Caparica, Portugal
² CENIMAT/I3N, Physics Department, NOVA School of Science and Technology, Universidade Nova de Lisboa, Campus de Caparica, 2829-516, Caparica, Portugal e-mail: t.pivetta@campus.fct.unl.pt mfr@fct.unl.pt

It is known that traditional chemotherapy has several side effects and, as an alternative to conventional treatment, natural compounds have been studied considering that some molecules can be associated to several therapeutic properties, including for cancer therapy [1]. Some examples are the molecules curcumin, quercetin and (–)-Epigallocatechin 3-gallate (EGCG) that present preventive and antiproliferative properties in cancer therapy [2–4]. In this work, squamous cell carcinoma (MET1 SCC cell line) was treated with different natural molecules (curcumin, quercetin and EGCG) and cell viability was evaluated. Cells treated with the molecules and exposed to light irradiation were also studied. EGCG and quercetin were not cytotoxic at low concentrations, however, curcumin presented toxicity from 20 μ M up to higher concentrations with a dose dependent manner. No effect of photo-induced toxicity was observed for these molecules at the range of concentration studied. Therefore, the application of natural compounds in cancer therapeutics is dependent on the concentration applied and molecule properties.

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