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TARGETING MITOCHONDRIA IN OVARIAN CANCER

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Cancer continues to be a leading cause of death along with cardiovascular diseases and it's a major health problem creating enormous socioeconomic burden on societies. Inspite of the increase in patient survival rates promoted by increased screening and prevention efforts, much faster tumor genome sequencing and developed smart targeted therapies, *de novo* or acquired chemo-resistance still remains to be a significant factor for treatment failure in cancer therapeutics. Conventional chemotherapy and radiotherapy constitute the main two approaches in addition to surgery in cancer treatment. These treatment approaches activate mitochondrial cell death machinery to eliminate cancer cells. Bcl-2 protein family members regulate mitochondrial cell death pathway and the release of cytochrome c into the cytosol, which is the point of no return for cell death. Of note, we can predict how close is a cell to death by using a peptide-based mitochondrial analysis method, which is based on different binding affinities of pro-apoptotic BH3-only Bcl-2 proteins to antiapoptotic Bcl-2 proteins. We worked on ovarian cancer cell lines. Our works highlight the promising potential of using BH3 profiling assay.

Biography

Asli Giray has completed her PhD from Inonu University and Postdoctoral Studies from Sabanci University from Turkey. She has worked as a Researcher at Alanya Alaaddin Keykubat University, Faculty of Engineering, Department of Genetic and Bioengineering in Turkey since 2017. She has worked on 14 projects and published more than 12 papers.

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