Graphene based nanomaterials for cancer therapy

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Graphene, a two-dimensional, single-layer sheet of sp² hybridized carbon atoms, carbon-based material with physical properties such as electronic conductivity, thermal stability, mechanical strength. There are different forms of graphene including graphene oxide (GO). Different forms can be easily processed and functionalized. These functionalized forms can have different interactions with biological structures. Graphene based materials have different applications in the biomedical field, one of which is cancer therapy. This talk will summarize various studies involving graphene based materials in cancer research. Specific focus will be placed on photocatalytic and photodynamic therapies involving graphene derivatives. Furthermore, the importance of using 2-dimensional or 3-dimensional cultures in these graphene based cancer therapy protocols will be discussed in detail.

Biography

A Yilmazer is working as an Assistant Professor in the Biomedical Engineering Department of Ankara University. She has been the Vice Director of the Stem Cell Institute of Ankara University since December 2016. She completed her MSc degree in Cancer Immunotherapy from the University of Nottingham (UK) and obtained her PhD in the Nanomedicine Lab based in the School of Pharmacy, University College London. She has published papers on nanomedicine, cancer therapy and cellular reprogramming in various distinguished journals.

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