

# Graphene Derivatives for Bioapplications: Cellular Response to Graphene and Behaviors of Mammalian Cells

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Graphene and graphene derivatives have attracted enormous attention from various research fields for applications in electronic devices, transparent electrodes, biosensors, drug delivery system and surface coatings. In the viewpoint of chemist, the chemical structure of graphene derivatives seems intriguing but detailed structures are being revealed only recently while engineering approaches for various applications are being executed very actively. In addition, cytotoxicity and mammalian cellular responses to graphene have not thoroughly investigated yet in spite of the importance in bio-applications and environment.

In this talk, I'll introduce recent studies which report cytotoxicity and behaviors of mammalian cells when the cells are exposed to graphene (as well as some bio-applications of graphene), especially to get closer to answers to these questions, "how we understand and how/why we use graphene in biotechnology".

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