

Graphene-based Flat Nanotechnology for Medicine

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The University of Manchester/ Universitat Autònoma de Barcelona

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Venue: Faculty of Engineering Bldg. 2, Room 31A

Abstract:

The use of nanomaterials in medicine has been growing at an unprecedented rate for a variety of therapeutic, diagnostic or combinatory applications. Graphene and its different iterative 2-dimensional nanostructured family of materials (graphene oxide, reduced graphene oxide, and many more) possess unique properties that make them attractive materials for biomedical applications.

We have developed a toolkit of graphene-based flat nanotechnology designs, each transforming a unique set of nanomaterial characteristics into a value and solution proposition for specific clinical challenges. This talk will illustrate the pathway of transformation from a novel 2D nanomaterial, completely unexplored in biology and medicine, to a clinically-used flexible device for in vivo brain mapping. The lessons learnt and the challenges around such transformation of advanced nanomaterials will be highlighted.



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