Séminaire externe

" The potential of Graphene for Bioimaging, Therapeutics and Regenerative Medicine."

Graphene is a two-dimensional (2-D) planar carbon nanostructure comprising of one atom thick densely packed network of sp^2-hybridized carbon atoms arranged in a honeycomb crystal lattice formation. This material has attracted a great deal of attention due to its unique nanoscopic properties. Its scientific significance, and potential transformative impact have been recognized by the 2010 Nobel prize in Physics. Recent reports also predict that graphene may overtake carbon nanotubes in commercial applications.

The physical and chemical properties of graphene make them particularly promising for a variety of biomedical applications. In our lab, we have explored the properties of graphene as advanced contrast agents (CAs) for multimodal imaging, as stimulus-response drug delivery or therapeutic agents, and as bioactive porous scaffolds for tissue engineering. In this presentation, issues related to the design, fabrication, and evaluation of graphene for these application will be discussed. Further, the talk will also discuss the challenges that need to be overcome to translate graphene-based biomedical products into clinic.

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Invité par Eva Jakab Toth

Vendredi 9 octobre 2015 à 11h
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