Accepted Manuscript

Allotropic carbon (graphene oxide and reduced graphene oxide) based biomaterials for neural regeneration

Sathish Reddy, Xiaoting Xu, Liumin He, Seeram Ramakrishana

PII: S2468-4511(17)30094-6

DOI: 10.1016/j.cobme.2018.05.001

Reference: COBME 89

To appear in: Current Opinion in Biomedical Engineering

Received Date: 16 January 2018
Revised Date: 30 March 2018
Accepted Date: 14 May 2018

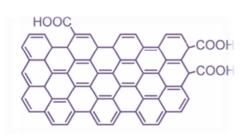
Please cite this article as: S. Reddy, X. Xu, L. He, S. Ramakrishana, Allotropic carbon (graphene oxide and reduced graphene oxide) based biomaterials for neural regeneration, *Current Opinion in Biomedical Engineering* (2018), doi: 10.1016/j.cobme.2018.05.001.

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



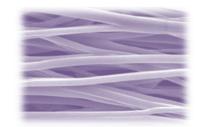
ACCEPTED MANUSCRIPT

Graphical Figure-1



Reduced Graphene oxide

Highly electrical conductivity,
surrounded edge charge, flexible
nature, high surface area and mobility
of charge carriers, support stimulation
to enhanced adhesive neuron cells,
cell-cell communication & neural
differentiation.



Aligned Biomaterials

Satisfactory biocompatibilities, higher efficiency of neural differentiation & neurite outgrowth length, mechanical properties, porosity, adustable degradation rate, encapsulated protein or drug & prevent the burst release, sustained release of nerve growth factor & stick 3D cell

Reduced
Graphene oxide

Aligned
biomaterial fibre

Neuron

Graphene based biomaterials scaffold for neural regeneration

Download English Version:

https://daneshyari.com/en/article/8918954

Download Persian Version:

https://daneshyari.com/article/8918954

<u>Daneshyari.com</u>