

conferenceseries.com

2nd Annual Conference and Expo on

BIOMATERIALS

March 27-28, 2017 Madrid, Spain

(OHFWULFDO VWLPXODWLRQ RI 3& FHOOV FXOWXUHG RQ VLON

Salvador Aznar-Cervantés Ana Pagá, Jose G Martínez, Antonia Bernabeu-Escapèz Toribio F Oterà Luis Meseguer-Olmó Juan I Paredés D Q G Jose L Cenis

¹, PLGD 0XUFLDQR , QVWLWXWH IRU \$JULFXOWXUDO DQG)RRG 5HVHDFK DQG 'HYHORSPHQW 6SD

²Polytechnic University of Cartagena, Spain

³University of Murcia, Spain

⁴ & DWKROLF 8QLYHUVLW\ 6DQ \$QWRQLR GH 0XUFLD 6SDLQ

⁵National Institute of Coal - CSIC, Spain

New approaches to neural research require biocompatible materials capable to act as electrode structures or scaffolds in order to stimulate or restore the functionality of damaged tissues. Graphene is a conducting material introduced in the field of tissue engineering due to its good biocompatibility and potential applications in biomedicine. Silk fibroin (SF) is also a well-known biocompatible material in itself that combines with graphene producing hybrid films formats, providing an excellent support for cell proliferation. However, the use of electrospun mats seems to be a better choice due to the biomimetic configuration with an extracellular matrix. Therefore, the approach proposed in the present work explores the combination of reduced graphene oxide (rGO) adsorbent chitosan (CS) and poly(l-lactide-co-glycolide) (PLGA) microspheres. The results show that the combination of rGO and CS provides a better support for cell proliferation than PLGA alone. The combination of rGO and CS provides a better support for cell proliferation than PLGA alone. The combination of rGO and CS provides a better support for cell proliferation than PLGA alone.

Notes: