Accepted Manuscript

"The return of ceramic implants": Rose stem inspired dual layered modification of ceramic scaffolds with improved mechanical and anti-infective properties



Chen Li, Fanrong Ai, Xinxin Miao, Hang Liao, Fengshun Li, Mingzhuo Liu, Fen Yu, Lina Dong, Ting Li, Xiaolei Wang

PII:	S0928-4931(17)34684-2
DOI:	doi:10.1016/j.msec.2018.08.044
Reference:	MSC 8838
To appear in:	Materials Science & Engineering C
Received date:	1 December 2017
Revised date:	6 July 2018
Accepted date:	20 August 2018

Please cite this article as: Chen Li, Fanrong Ai, Xinxin Miao, Hang Liao, Fengshun Li, Mingzhuo Liu, Fen Yu, Lina Dong, Ting Li, Xiaolei Wang, "The return of ceramic implants": Rose stem inspired dual layered modification of ceramic scaffolds with improved mechanical and anti-infective properties. Msc (2018), doi:10.1016/j.msec.2018.08.044

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

"The return of ceramic implants": rose stem inspired dual layered modification of ceramic scaffolds with improved mechanical and anti-infective properties

Chen Li^{a,#}, Fanrong Ai^{b,c,e,#}, Xinxin Miao^a, Hang Liao^a, Fengshun Li^b, Mingzhuo Liu^d, Fen Yu^b, Lina Dong^b, Ting Li^b & Xiaolei Wang^{a,b}*

^a Department of Orthopedic Surgery, The Second Affiliated Hospital of Nanchang University, Nanchang, Jiangxi, 330006, China. ^b Institute of Translational Medicine, Nanchang University, Nanchang, Jiangxi, 330031, China. ^c School of Mechanical & Electronic Engineering, Nanchang University, Nanchang, Jiangxi, 330031, China. ^d Department of Burns, The First Affiliated Hospital of Nanchang University, Nanchang, Jiangxi, 330006, China. ^eKey Laboratory of Lightweight and high strength structural materials of Jiangxi Province, Nanchang University, Nanchang 330031, China. #These authors contributed equally to this work.* Address correspondence to E-mail: wangxiaolei@ncu.edu.cn

Abstract

Nowadays, traditional ceramics for bone implants have considerably replaced by metal based biomedical materials, attributing to the friability of ceramics. However, ceramic implants possess excellent biocompatibility and longtime abrasion resistance. They should be more Download English Version:

https://daneshyari.com/en/article/11006725

Download Persian Version:

https://daneshyari.com/article/11006725

Daneshyari.com