

Accepted Manuscript

Full length article

Dual-functional 3D-printed composite scaffold for inhibiting bacterial infection and promoting bone regeneration in infected bone defect models

Ying Yang, Linyang Chu, Shengbing Yang, Hongbo Zhang, Ling Qin, Olivier Guillaume, David Eglin, R. Geoff Richards, Tingting Tang

PII: S1742-7061(18)30482-3
DOI: <https://doi.org/10.1016/j.actbio.2018.08.015>
Reference: ACTBIO 5619

To appear in: *Acta Biomaterialia*

Received Date: 30 May 2018
Revised Date: 29 July 2018
Accepted Date: 16 August 2018

Please cite this article as: Yang, Y., Chu, L., Yang, S., Zhang, H., Qin, L., Guillaume, O., Eglin, D., Richards, R.G., Tang, T., Dual-functional 3D-printed composite scaffold for inhibiting bacterial infection and promoting bone regeneration in infected bone defect models, *Acta Biomaterialia* (2018), doi: <https://doi.org/10.1016/j.actbio.2018.08.015>

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.



Dual-functional 3D-printed composite scaffold for inhibiting bacterial infection and promoting bone regeneration in infected bone defect models

Ying Yang^{a,b,c,1}, Linyang Chu^{a,1}, Shengbing Yang^a, Hongbo Zhang^d, Ling Qin^e,
Olivier Guillaume^f, David Eglin^f, R. Geoff Richards^f, Tingting Tang^{a,*}

^aShanghai Key Laboratory of Orthopaedic Implants, Department of Orthopaedic Surgery, Shanghai Ninth People's Hospital, Shanghai Jiao Tong University, School of Medicine, Shanghai, China

^bDepartment of Plastic Surgery, Xiangya Hospital, Central South University, Changsha, China

^cState Key Laboratory of Powder Metallurgy, Central South University, Changsha, China

^dSchool of Mechanical and Power Engineering, East China University of Science and Technology, Shanghai, China

^eDepartment of Orthopaedics and Traumatology, The Chinese University of Hong Kong, Hong Kong, China

^fAO Research Institute Davos, Switzerland

¹Ying Yang and Linyang Chu contributed equally to this study

*Corresponding author: Tingting Tang

Shanghai Key Laboratory of Orthopedic Implants, Department of Orthopedic Surgery, Shanghai Ninth People's Hospital, Shanghai Jiao Tong University School of Medicine, 639 Zhizaoju Road, Shanghai 200011, People's Republic of China

Tel +86 2123271133

Fax +86 2163137020

E-mail: ttt@sjtu.edu.cn

ABSTRACT: Infection is one of the pivotal causes of nonunion in large bone defect after trauma or tumor resection. Three-dimensional (3D) composite scaffold with multifunctional-therapeutic properties

Download English Version:

<https://daneshyari.com/en/article/10224746>

Download Persian Version:

<https://daneshyari.com/article/10224746>

[Daneshyari.com](https://daneshyari.com)