

Accepted Manuscript

Nanocomposite hydrogels stabilized by self-assembled multivalent bisphosphonate-magnesium nanoparticles mediate sustained release of magnesium ion and promote in-situ bone regeneration

Kunyu Zhang, Sien Lin, Qian Feng, Chaoqun Dong, Yanhua Yang, Gang Li, Liming Bian

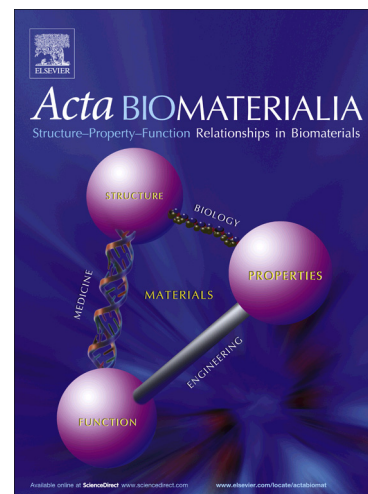
PII: S1742-7061(17)30611-6
DOI: <https://doi.org/10.1016/j.actbio.2017.09.039>
Reference: ACTBIO 5101

To appear in: *Acta Biomaterialia*

Received Date: 4 July 2017
Revised Date: 22 September 2017
Accepted Date: 25 September 2017

Please cite this article as: Zhang, K., Lin, S., Feng, Q., Dong, C., Yang, Y., Li, G., Bian, L., Nanocomposite hydrogels stabilized by self-assembled multivalent bisphosphonate-magnesium nanoparticles mediate sustained release of magnesium ion and promote in-situ bone regeneration, *Acta Biomaterialia* (2017), doi: <https://doi.org/10.1016/j.actbio.2017.09.039>

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.



Nanocomposite hydrogels stabilized by self-assembled multivalent bisphosphonate-magnesium nanoparticles mediate sustained release of magnesium ion and promote in-situ bone regeneration

Kunyu Zhang ^{a, 1}, Sien Lin ^{b, 1}, Qian Feng ^a, Chaoqun Dong ^a, Yanhua Yang ^b, Gang Li ^{b,*} and Liming Bian ^{a, c, d, e, f, *}

^a Department of Biomedical Engineering, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, P.R. China

^b Department of Orthopaedic and Traumatology, The Chinese University of Hong Kong, New Territories, Hong Kong, P.R. China

^c Shun Hing Institute of Advanced Engineering, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, P.R. China

^d Shenzhen Research Institute, The Chinese University of Hong Kong, Shenzhen, P.R. China

^e China Orthopedic Regenerative Medicine Group (CORMed), Hangzhou, P.R. China

^f Center for Novel Biomaterials, The Chinese University of Hong Kong, Shatin, New Territories, Hong Kong, P.R. China

* Corresponding author. Tel: (852) 3943 8342; Fax: (852) 2603 6002.
E-mail: lbian@cuhk.edu.hk (L. Bian)

* Corresponding author. Tel: (852) 3763 6153; Fax: (852) 2646 3020.
E-mail: gangli@cuhk.edu.hk (G. Li)

¹ These authors contributed equally to this work.

Keywords: magnesium, nanocomposite hydrogel, osteogenic differentiation, bone regeneration

Download English Version:

<https://daneshyari.com/en/article/6483206>

Download Persian Version:

<https://daneshyari.com/article/6483206>

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