

Accepted Manuscript

A PEGylated platelet free plasma hydrogel based composite scaffold enables stable vascularization and targeted cell delivery for volumetric muscle loss

Amit Aurora, Nicole Wrice, Thomas J. Walters, Robert J. Christy, Shanmugasundaram Natesan

PII: S1742-7061(17)30703-1
DOI: <https://doi.org/10.1016/j.actbio.2017.11.019>
Reference: ACTBIO 5172

To appear in: *Acta Biomaterialia*

Received Date: 23 April 2017
Revised Date: 26 October 2017
Accepted Date: 7 November 2017

Please cite this article as: Aurora, A., Wrice, N., Walters, T.J., Christy, R.J., Natesan, S., A PEGylated platelet free plasma hydrogel based composite scaffold enables stable vascularization and targeted cell delivery for volumetric muscle loss, *Acta Biomaterialia* (2017), doi: <https://doi.org/10.1016/j.actbio.2017.11.019>

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.



A PEGylated platelet free plasma hydrogel based composite scaffold enables stable vascularization and targeted cell delivery for volumetric muscle loss

Amit Aurora¹, Nicole Wrice², Thomas J. Walters³, Robert J. Christy², Shanmugasundaram Natesan²

¹ Clinical Trials and Burns Trauma, Institute of Surgical Research, TX 78234

² Combat Trauma and Burn Injury Research, Institute of Surgical Research, TX 78234

² Extremity Trauma and Regenerative Medicine, Institute of Surgical Research, TX 78234

Corresponding Author

Shanmugasundaram Natesan, PhD

Combat Trauma and Burn Injury Research

Institute of Surgical Research

3698 Chambers Pass STE B

JBSA, Ft. Sam Houston, TX 78234-7767

Telephone: 210.539.9286

Fax: 210.539.3877

E-mail: shanmugasundaram.natesan.ctr@mail.mil

1. Introduction

Extracellular matrix (ECM) scaffolds have been used therapeutically to repair soft tissue injuries that includes Volumetric Muscle Loss (VML); however, the healing response is often accompanied by deposition of fibrotic tissue [1-3]. One plausible explanation for fibrotic deposition is the lack of blood vessels, which limits the diffusion of oxygen and necessary

Download English Version:

<https://daneshyari.com/en/article/6483143>

Download Persian Version:

<https://daneshyari.com/article/6483143>

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