

Accepted Manuscript

Title: Enhanced Cellular Response Elicited by Addition of Amniotic fluid to Alginate Hydrogel-Electrospun Silk Fibroin Fibers for Potential Wound Dressing Application

Authors: Sama Ghalei, Jhamak Nourmohammadi, Atefeh Solouk, Hamid Mirzadeh



PII: S0927-7765(18)30554-X
DOI: <https://doi.org/10.1016/j.colsurfb.2018.08.028>
Reference: COLSUB 9560

To appear in: *Colloids and Surfaces B: Biointerfaces*

Received date: 18-3-2018
Revised date: 1-8-2018
Accepted date: 14-8-2018

Please cite this article as: Ghalei S, Nourmohammadi J, Solouk A, Mirzadeh H, Enhanced Cellular Response Elicited by Addition of Amniotic fluid to Alginate Hydrogel-Electrospun Silk Fibroin Fibers for Potential Wound Dressing Application, *Colloids and Surfaces B: Biointerfaces* (2018), <https://doi.org/10.1016/j.colsurfb.2018.08.028>

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.

Enhanced Cellular Response Elicited by Addition of Amniotic fluid to Alginate Hydrogel- Electrospun Silk Fibroin Fibers for Potential Wound Dressing Application

Sama Ghalei¹, Jhamak Nourmohammadi^{1*}, Atefeh Solouk², Hamid Mirzadeh³

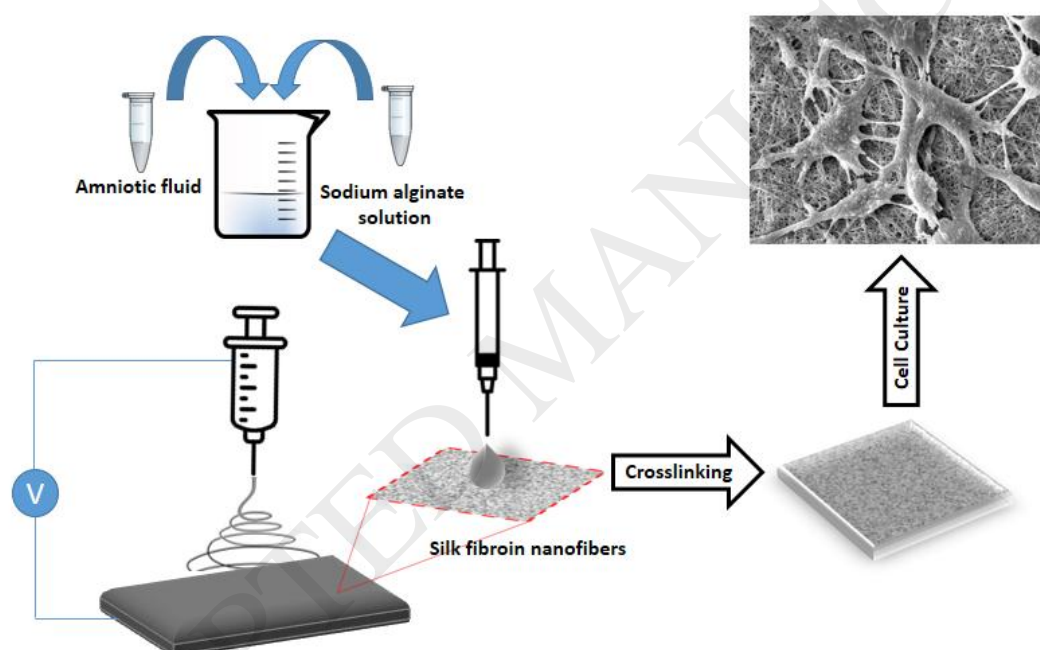
¹ Faculty of New Sciences and Technologies, Department of Life Science Engineering, University of Tehran, Tehran, Iran.

² Biomedical Engineering Faculty, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

³ Polymer Engineering Faculty, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran.

¹ Correspondence to: Jhamak Nourmohammadi. Faculty of New Sciences and Technologies, Department of Life Science Engineering, University of Tehran, Tehran, Iran. E-mail: J_nourmohammadi@ut.ac.ir.

Graphical abstract



Highlights

- Silk fibroin nanofibers was fully covered with alginate hydrogel containing amniotic fluid.
- Different dressings were made by changing the alginate to amniotic fluid ratio.
- Increasing alginate concentration reduced the in vitro release of amniotic fluid proteins.
- Poor cellular activity of alginate hydrogel enhanced by amniotic fluid.

Download English Version:

<https://daneshyari.com/en/article/9952449>

Download Persian Version:

<https://daneshyari.com/article/9952449>

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