

Accepted Manuscript

In situ-forming, cell-instructive hydrogels based on glycosaminoglycans with varied sulfation patterns

Passant Atallah, Lucas Schirmer, Mikhail Tsurkan, Yanuar Dwi Putra Limasale, Ralf Zimmermann, Carsten Werner, Uwe Freudenberg



PII: S0142-9612(18)30547-7

DOI: [10.1016/j.biomaterials.2018.07.056](https://doi.org/10.1016/j.biomaterials.2018.07.056)

Reference: JBMT 18799

To appear in: *Biomaterials*

Received Date: 18 April 2018

Revised Date: 20 July 2018

Accepted Date: 28 July 2018

Please cite this article as: Atallah P, Schirmer L, Tsurkan M, Putra Limasale YD, Zimmermann R, Werner C, Freudenberg U, *In situ*-forming, cell-instructive hydrogels based on glycosaminoglycans with varied sulfation patterns, *Biomaterials* (2018), doi: 10.1016/j.biomaterials.2018.07.056.

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.

1 ***In situ*-forming, cell-instructive hydrogels based on**
2 **glycosaminoglycans with varied sulfation patterns**

3

4 Passant Atallah¹, Lucas Schirmer¹, Mikhail Tsurkan¹, Yanuar Dwi Putra Limasale¹, Ralf
5 Zimmermann¹, Carsten Werner^{1,2} and Uwe Freudenberg^{1*}

6

7 ¹ Leibniz Institute of Polymer Research Dresden (IPF), Max Bergmann Center of Biomaterials
8 Dresden (MBC), Hohe Str. 6, 01069 Dresden, Germany

9 ² Technische Universität Dresden, Center for Regenerative Therapies Dresden (CRTD),
10 Fetscherstraße 105, 01307 Dresden, Germany

11

12

13 **Keywords:**

14 Glycosaminoglycans (GAG)

15 Desulfated heparin

16 Hydrogels

17 Platelet-derived growth factor B (PDGF-BB)

18 Mesenchymal stem cells (MSC)

19 Growth factor gradient

20

21 *Corresponding author: Uwe Freudenberg

22 E-mail address: freudenberg@ipfdd.de

23

24

Download English Version:

<https://daneshyari.com/en/article/6484299>

Download Persian Version:

<https://daneshyari.com/article/6484299>

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