



## OPEN ACCESS

APPROVED BY  
Frontiers Editorial Office,  
Frontiers Media SA, Switzerland

\*CORRESPONDENCE  
Michael Seidenstuecker,  
✉ michael.seidenstuecker@uniklinik-  
freiburg.de

RECEIVED 20 June 2024  
ACCEPTED 01 July 2024  
PUBLISHED 18 July 2024

CITATION  
Schweiker C, Zankovic S, Baghnavi A, Velten D,  
Schmal H, Thomann R and Seidenstuecker M  
(2024), Corrigendum: Core-shell 3D printed  
biodegradable calcium phosphate  
cement – Alginate scaffolds for possible bone  
regeneration applications.  
*Front. Drug Deliv.* 4:1452132.  
doi: 10.3389/fddev.2024.1452132

COPYRIGHT  
© 2024 Schweiker, Zankovic, Baghnavi, Velten,  
Schmal, Thomann and Seidenstuecker. This is  
an open-access article distributed under the  
terms of the [Creative Commons Attribution  
License \(CC BY\)](#). The use, distribution or  
reproduction in other forums is permitted,  
provided the original author(s) and the  
copyright owner(s) are credited and that the  
original publication in this journal is cited, in  
accordance with accepted academic practice.  
No use, distribution or reproduction is  
permitted which does not comply with these  
terms.

# Corrigendum: Core-shell 3D printed biodegradable calcium phosphate cement – Alginate scaffolds for possible bone regeneration applications

Clara Schweiker<sup>1,2</sup>, Sergej Zankovic<sup>1</sup>, Anna Baghnavi<sup>1</sup>,  
Dirk Velten<sup>2</sup>, Hagen Schmal<sup>3</sup>, Ralf Thomann<sup>4</sup> and  
Michael Seidenstuecker<sup>1\*</sup>

<sup>1</sup>G.E.R.N. Center of Tissue Replacement, Regeneration and Neogenesis, Department of Orthopedics and Trauma Surgery, Medical Center-Albert-Ludwigs-University of Freiburg, Faculty of Medicine, Albert-Ludwigs-University of Freiburg, Freiburg, Germany, <sup>2</sup>Institute for Applied Biomechanics, Faculty of Mechanical and Process Engineering, Offenburg University, Offenburg, Germany, <sup>3</sup>Department of Orthopedics and Trauma Surgery, Medical Center-Albert-Ludwigs-University of Freiburg, Faculty of Medicine, Albert-Ludwigs-University of Freiburg, Freiburg, Germany, <sup>4</sup>Freiburg Center for Interactive Materials and Bioinspired Technologies (FIT), Albert-Ludwigs-University Freiburg, Freiburg, Germany

## KEYWORDS

3D printing, CPC, core-shell printing, alginate, self-setting, scaffold, bone regeneration

## A Corrigendum on Core-Shell 3D printed biodegradable calcium phosphate cement – Alginate scaffolds for possible bone regeneration applications

by Schweiker C, Zankovic S, Baghnavi A, Velten D, Schmal H, Thomann R and Seidenstuecker M (2024). *Front. Drug Deliv.* 4:1407304. doi: 10.3389/fddev.2024.1407304

In the published article, there was an error in [Table 1](#) as published. An X was incorrectly placed at GP4 for PBS 1 week. The corrected [Table 1](#) and its caption [Table 1](#): Classification of the groups according to post treatment appear below.

In the published article, there was an error. In several instances, GP4 was incorrectly used instead of GP3.

A correction has been made to **Results, 3.2.1 Mechanical properties**, Paragraph 1. This sentence previously stated:

“It can be observed that the samples in GP1 (reference) and GP4 (freeze-dried) exhibit significantly lower maximum values.”

The corrected sentence appears below:

“It can be observed that the samples in GP1 (reference) and GP3 (freeze-dried) exhibit significantly lower maximum values.”

A correction has been made to **Results, 3.2.1 Mechanical properties**, Paragraph 2. This sentence previously stated:

“The non-post-treated sample GP1 showed a 4-fold higher mechanical strength compared to the GP4 freeze-dried sample, which also had no (self) setting/crosslinking time.”

The corrected sentence appears below:

TABLE 1 Classification of the groups according to post treatment.

Group post treatment	GP1	GP2	GP3	GP4	GP5	GP6	GP7	GP8
(Self)Setting/crosslinking for 1d	X							X
Water-saturated atmosphere 3d		X		X	X	X	X	
PBS 1 week		X			X	X		
TRIS pH5 2 weeks						X	X	
TRIS pH 7.4 2 weeks				X	X			
Freeze			X					
Alginate coating								X

“The non-post-treated sample GP1 showed a 4-fold higher mechanical strength compared to the GP3 freeze-dried sample, which also had no (self) setting/crosslinking time”

A correction has been made to **Discusson**, 4.3 *Mechanical properties*, Paragraph 1. This sentence previously stated:

“The reason for the low strength of sample GP4 is that this sample was frozen directly after printing to prevent the (self) setting/crosslinking reaction and to be able to compare it with the other samples.”

The corrected sentence appears below:

“The reason for the low strength of sample GP3 is that this sample was frozen directly after printing to prevent the (self) setting/crosslinking reaction and to be able to compare it with the other samples.”

In the published article, there was an error. Group 12 was incorrectly used instead of Group 8.

A correction has been made to **Discusson**, 4.2 *Surface condition*. This sentence previously stated:

“Samples from group 12-1 show no signs of alginate coating in the SEM, as the solution is too thin to be detected in the ESEM.

Group 12-2 and 12-3, on the other hand, both show an alginate coating, albeit unevenly.”

The corrected sentence appears below:

“Samples from group 8-1 show no signs of alginate coating in the SEM, as the solution is too thin to be detected in the ESEM. Group 8-2 and 8-3, on the other hand, both show an alginate coating, albeit unevenly.”

The authors apologize for these errors and state that they do not change the scientific conclusions of the article in any way. The original article has been updated.

## Publisher's note

All claims expressed in this article are solely those of the authors and do not necessarily represent those of their affiliated organizations, or those of the publisher, the editors and the reviewers. Any product that may be evaluated in this article, or claim that may be made by its manufacturer, is not guaranteed or endorsed by the publisher.