



(11)

EP 3 833 741 B8

(12) **CORRECTED EUROPEAN PATENT SPECIFICATION**

(15) Correction information:
Corrected version no 1 (W1 B1)
Corrections, see
Bibliography INID code(s) 73

(48) Corrigendum issued on:
06.03.2024 Bulletin 2024/10

(45) Date of publication and mention
of the grant of the patent:
15.11.2023 Bulletin 2023/46

(21) Application number: **19769576.0**

(22) Date of filing: **05.08.2019**

(51) International Patent Classification (IPC):
G01N 33/50 ^(2006.01) **A61L 27/38** ^(2006.01)
A61L 27/50 ^(2006.01) **C12N 5/071** ^(2010.01)

(52) Cooperative Patent Classification (CPC):
G01N 33/5082; A61L 27/3808; A61L 27/507;
C12N 5/0691; C12N 5/0697; G01N 33/5061;
G01N 33/5064

(86) International application number:
PCT/IB2019/056652

(87) International publication number:
WO 2020/031067 (13.02.2020 Gazette 2020/07)

(54) **MODEL FOR IN-VITRO SIMULATION OF THE BEHAVIOUR OF DYSFUNCTIONAL VESSELS**
MODELL ZUR IN-VITRO-SIMULATION DES VERHALTENS VON DYSFUNKTIONELLEN GEFÄßEN
MODÈLE DE SIMULATION IN VITRO DU COMPORTEMENT DE VAISSEAUX DYSFUNCTIONNELS

(84) Designated Contracting States:
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR

(30) Priority: **07.08.2018 IT 201800007946**

(43) Date of publication of application:
16.06.2021 Bulletin 2021/24

(73) Proprietor: **1MED SA**
6982 Agno (CH)

(72) Inventors:
• **PERFLER, Enrico**
6928 Manno (CH)
• **BIFFI, Andrea**
6928 Manno (CH)
• **FARINA, Stefano**
6928 Manno (CH)

(74) Representative: **Benedetto, Marco**
Marben S.r.l.
Via Larga, 16
20122 Milano (IT)

(56) References cited:
WO-A1-2012/175797 WO-A1-2015/061907
WO-A1-2018/053265 WO-A1-2018/063099
WO-A1-2019/034966 WO-A2-03/082145
US-A1- 2004 037 813 US-A1- 2007 243 574

- **Robert J Fisher ET AL: "Controlling Tissue Microenvironments: Biomimetics, Transport Phenomena, and Reacting Systems" In: "Tissue Engineering II", 1 January 2007 (2007-01-01), Springer, XP055574046, ISBN: 978-3-540-36186-2 pages 1-73, page 40, paragraph 3.5.2 - page 4.5, paragraph 3.5.3**
- **TAKEHISA MATSUDA: "Fabrication Factory for Tubular Vascular Tissue Mimics based on Automated Rolling Manipulation and Thermo-Responsive Polymers", JOURNAL OF TISSUE SCIENCE & ENGINEERING, vol. 05, no. 01, 1 January 2014 (2014-01-01), page 1, XP055574055, DOI: 10.4172/2157-7552.1000134**

Note: Within nine months of the publication of the mention of the grant of the European patent in the European Patent Bulletin, any person may give notice to the European Patent Office of opposition to that patent, in accordance with the Implementing Regulations. Notice of opposition shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European Patent Convention).

EP 3 833 741 B8

- ZHANG X ET AL: "Dynamic culture conditions to generate silk-based tissue-engineered vascular grafts", *BIOMATERIALS*, ELSEVIER SCIENCE PUBLISHERS BV., BARKING, GB, vol. 30, no. 19, 1 July 2009 (2009-07-01), pages 3213-3223, XP026130537, ISSN: 0142-9612, DOI: 10.1016/J.BIOMATERIALS.2009.02.002 [retrieved on 2009-02-20]
- LIU YUANYUAN ET AL: "Fabrication of triple-layered bifurcated vascular scaffold with a certain degree of three-dimensional structure", *AIP ADVANCES*, AMERICAN INSTITUTE OF PHYSICS, 2 HUNTINGTON QUADRANGLE, MELVILLE, NY 11747, vol. 8, no. 1, 9 January 2018 (2018-01-09), XP012225292, DOI: 10.1063/1.5015947 [retrieved on 2018-01-09]
- PETER S. MCFETRIDGE ET AL: "Endothelial and Smooth Muscle Cell Seeding onto Processed Ex Vivo Arterial Scaffolds Using 3D Vascular Bioreactors", *ASAIO JOURNAL*, vol. 50, no. 6, 1 November 2004 (2004-11-01), pages 591-600, XP055181112, ISSN: 1058-2916, DOI: 10.1097/01.MAT.0000144365.22025.9B
- SEBASTIAN SCHUERLEIN ET AL: "A versatile modular bioreactor platform for Tissue Engineering", *BIOTECHNOLOGY JOURNAL*, vol. 12, no. 2, 1 February 2017 (2017-02-01), page 1600326, XP055521499, DE ISSN: 1860-6768, DOI: 10.1002/biot.201600326