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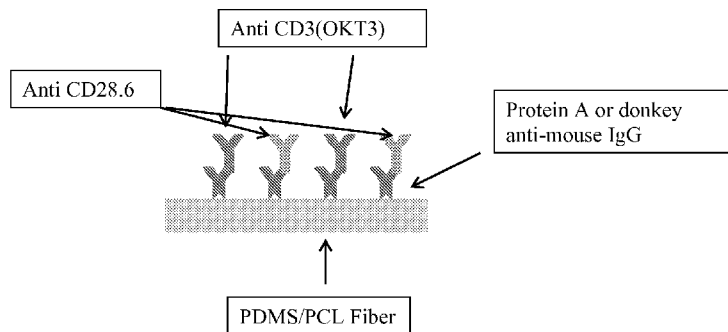
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(54) Title: METHODS, COMPOSITIONS, AND SYSTEMS FOR ACTIVATION AND EXPANSION OF CELLS

FIG. 4



(57) Abstract: The disclosure provides for compositions, systems, and methods of cell expansion, stimulation and/or differentiation. The disclosure further provides for a mesh substrate and associated methods capable of stimulating cell expansion, for example, T cell or stem cell expansion. In another aspect, the disclosure provides for an electrospun mesh substrate and methods of using thereof comprising a silicone rubber composition, for example, polydimethylsiloxane, PLC, or combinations thereof.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. C12N5/00
ADD.
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
C12N
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal, BIOSIS, CHEM ABS Data, EMBASE, INSPEC, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	RAO SHREYAS S ET AL: "Mimicking white matter tract topography using core-shell electrospun nanofibers to examine migration of malignant brain tu", BIOMATERIALS, vol. 34, no. 21, 16 April 2013 (2013-04-16), pages 5181-5190, XP028593852, ISSN: 0142-9612, DOI: 10.1016/J.BIOMATERIALS.2013.03.069 the whole document	1-40
Y	GB 2 504 996 A (UNIV KEELE [GB]) 19 February 2014 (2014-02-19) example 1 claims 1-20	1-40

Further documents are listed in the continuation of Box C.

See patent family annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Bayer, Martin
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INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	<p>WO 2014/145745 A1 (LANNUTTI JOHN [US]; XUE RUIPENG [US]) 18 September 2014 (2014-09-18) examples 1, 2 claims 1-23</p> <p style="text-align: center;">-----</p>	1-40
T	<p>Danielle R Bogdanowicz ET AL: "Poly(dimethyl siloxane)-Containing Nanofiber Meshes as a Platform for Studying Stem Cell Behavior", 1 January 2015 (2015-01-01), XP055241563, Retrieved from the Internet: URL:http://2015.biomaterials.org/sites/default/files/abstracts/136.pdf [retrieved on 2016-01-14] the whole document</p> <p style="text-align: center;">-----</p>	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2015/025355

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
GB 2504996	A	19-02-2014	EP 2885016 A2 24-06-2015
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			WO 2014027176 A2 20-02-2014

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