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(71) Applicant: **DIRECT BIOLOGICS, LLC** [US/US]; 5301 Southwest Parkway, Bldg. 1, Suite 415, Austin, Texas 78735 (US).

(72) Inventors: **MOSELEY, Timothy, Alexander**; 5301 Southwest Parkway, Bldg. 1, Suite 415, Austin, Texas 78735 (US). **PETTINE, Kenneth, Allen**; 5301 Southwest Parkway, Bldg. 1, Suite 415, Austin, Texas 78735 (US). **CROSE, Joshua, J.**; 5301 Southwest Parkway, Bldg. 1, Suite 415, Austin, Texas 78735 (US).

(74) Agent: **YOON, Koyi et al.**; Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, California 94304 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,

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Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- of inventorship (Rule 4.17(iv))

Published:

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20 February 2025 (20.02.2025)

(54) Title: TREATMENT OF AMYOTROPHIC LATERAL SCLEROSIS WITH EXTRACELLULAR VESICLE COMPOSITION

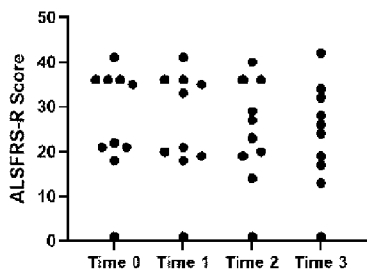


FIG. 1A

(57) Abstract: Disclosed are methods of treating amyotrophic lateral sclerosis in a subject by administering a therapeutic MSC secretome product made by a method comprising culturing bone marrow-derived MSCs under conditions that include oxygen tension below 5% and a culture media with a pH below 7.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 24/33123

A. CLASSIFICATION OF SUBJECT MATTER

IPC - INV. A61K 9/127 (2024.01)

ADD. A61K 35/28, A61K 9/00, A61K 38/17 (2024.01)

CPC - INV. A61K 9/127

ADD. A61K 38/177, A61K 9/0019

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)

See Search History document

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

See Search History document

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

See Search History document

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2020/0316226 A1 (CEDARS-SINAI MEDICAL CENTER) 08 October 2020 (08.10.2020) para [0038]; [0041]; [0042]; [0086]; [0096]; [0106]	1, 61-62
Y		2-9, 33-35, 63-70
Y	US 2021/0128627 A1 (BRAINSTORM CELL THERAPEUTICS LTD.) 06 May 2021 (06.05.2021) para [0055]; [0296]	2-9, 63-70
Y	US 2019/0269739 A1 (EXOSTEM BIOTEC LTD.) 05 September 2019 (05.09.2019) para [0219]; [0243]; [0244]; [0245]; [0249]	33-35

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"D" document cited by the applicant in the international application	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"E" earlier application or patent but published on or after the international filing date	"&" document member of the same patent family
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 15 August 2024 (15.08.2024)	Date of mailing of the international search report SEP 17 2024
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-8300	Authorized officer Kari Rodriguez Telephone No. PCT Helpdesk: 571-272-4300
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 24/33123

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. Claims Nos.: 10-32, 36-60, 71-93
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.