

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 June 2025 (26.06.2025)



(10) International Publication Number
WO 2025/137077 A1

(51) International Patent Classification:

A61K 35/28 (2015.01) A61P 25/28 (2006.01)
A61B 5/00 (2006.01) G01N 33/68 (2006.01)

(21) International Application Number:

PCT/US2024/060734

(22) International Filing Date:

18 December 2024 (18.12.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/612,240 19 December 2023 (19.12.2023) US

(71) Applicant: **LONGEVERON, INC.** [US/US]; 1951 NW
7th Avenue, Suite 520, Miami, Florida 33136 (US).

(72) Inventor: **HARE, Joshua M.**; c/o Longeveron, Inc., 1951
NW 7th Avenue, Suite 520, Miami, Florida 33136 (US).

(74) Agent: **STEWART, Duane A., III** et al.; BUCHANAN
INGERSOLL & ROONEY PC, 501 Grant Street, Suite 200,
Pittsburgh, Pennsylvania 15219-4413 (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, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(54) Title: IMPROVED BRAIN ARCHITECTURE AND BIOMARKERS IN ALZHEIMER'S DISEASE WITH MESENCHYMAL STEM CELLS

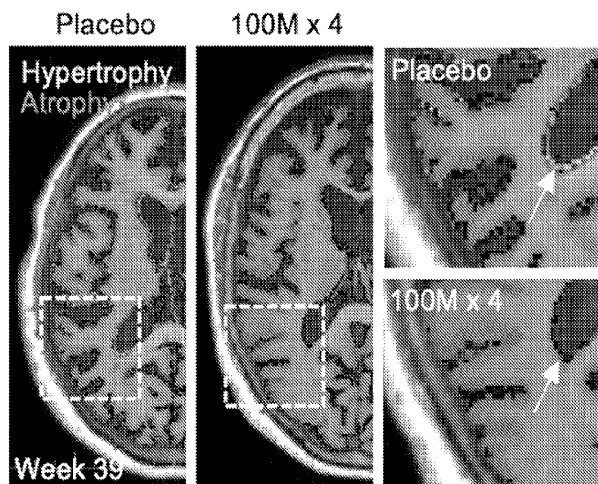


FIG. 3A

(57) Abstract: Compositions and methods are disclosed herein for the treatment of Alzheimer's disease with allogeneic mesenchymal stem cells. The methods of treatment involve the administration of a composition of allogeneic mesenchymal stem cells to a subject in need thereof, wherein the efficacy of the treatment methods can be determined through the measurement of specific biomarkers and improved cognitive function and/or quality of life.

[Continued on next page]

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*