

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
07 December 2023 (07.12.2023)



(10) International Publication Number
WO 2023/230657 A1

(51) International Patent Classification:

C07K 14/005 (2006.01) *A61P 27/02* (2006.01)
A61K 35/761 (2015.01) *C07K 14/075* (2006.01)
A61K 48/00 (2006.01) *C12N 15/86* (2006.01)

SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(21) International Application Number:

PCT/AU2023/050463

(22) International Filing Date:

31 May 2023 (31.05.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2022901483 31 May 2022 (31.05.2022) AU

(71) Applicant: MOUNT SPEC INVESTMENTS PTY LTD

[AU/AU]; n/a, Fortitude Valley, Queensland 4006 (AU).

(72) Inventors: LAYTON, Christopher; C/- Mount Spec Investments Pty Ltd, Fortitude Valley, Queensland 4006 (AU).

KOZLOV, Sergei; C/- Mount Spec Investments Pty Ltd, Fortitude Valley, Queensland 4006 (AU). STEEL, Jason; C/- Mount Spec Investments Pty Ltd, Fortitude Valley, Queensland 4006 (AU).

(74) Agent: FB RICE PTY LTD; Level 33, 477 Collins St, Melbourne, Victoria 3000 (AU).

(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,

(54) Title: MODIFIED ADENO-ASSOCIATED VIRUS CAPSID PROTEINS AND METHODS THEREOF

(57) Abstract: The present invention relates to modified recombinant adeno-associated virus (AAV) capsid proteins and AAV particles thereof. In one aspect, the modified recombinant AAV particles provide for increased transduction of retinal cells when compared to the effect of a recombinant AAV particle that does not comprise the modification. The present invention also relates to nucleic acids encoding the modified AAV capsid proteins and AAV particles thereof.



WO 2023/230657 A1