



(51) International Patent Classification:

A61K 31/07 (2006.01) A61K 47/18 (2017.01)
A61K 9/00 (2006.01) A61K 47/22 (2006.01)
A61K 9/10 (2006.01) A61K 47/34 (2017.01)
A61K 9/48 (2006.01) A61K 47/44 (2017.01)
A61K 31/203 (2006.01) A61K 47/46 (2006.01)
A61K 47/02 (2006.01) A61K 47/54 (2017.01)
A61K 47/10 (2017.01) A61P 27/02 (2006.01)

(21) International Application Number:

PCT/IB2025/000029

(22) International Filing Date:

17 January 2025 (17.01.2025)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2024900129 19 January 2024 (19.01.2024) AU

(71) Applicant: **GENE COMPANY PTY LTD** [AU/AU]; 60
Musk Avenue, Kelvin Grove, Brisbane, QLD 4059 (AU).

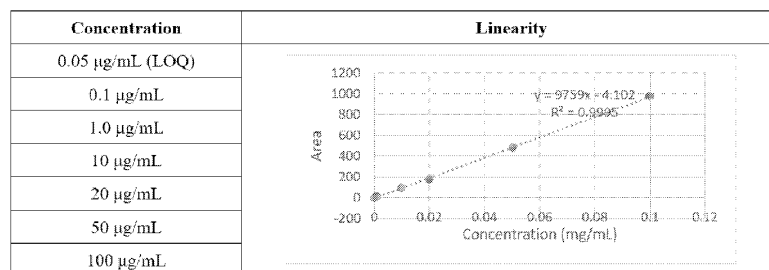
(72) Inventor: **WANG, Cheng, Chi**; 60 Musk Avenue, Kelvin
Grove, Brisbane, QLD 4059 (AU).

(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, UY, 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: RETINOID COMPOSITIONS AND METHODS OF USE

Fig. 1



(57) Abstract: Described herein are retinoid compositions comprising (a) a retinoid preferably a C20-deuterated vitamin A that inhibits dimerisation to N-retinylidene-N-retinylethanolamine (A2E), (b) a lipid excipient preferably an omega-3 fatty acid comprising eicosapentaenoic acid (EPA) or docosahexaenoic acid (DHA), and (c) a surfactant, wherein the compositions increase the bioavailability of the retinoid in a subject, and methods of using such retinoid compositions for treating eye conditions including macular degeneration.

[Continued on next page]

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

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:

- *with international search report (Art. 21(3))*