9802354-7

RTMP's copy

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : A61K 47/36, 48/00 — A1

(11) International Publication Number: WO 97/15330

(43) International Publication Date: 1 May 1997 (01.05.97)

(21) International Application Number: PCT/AU96/00664

(22) International Filing Date: 22 October 1996 (22.10.96)

(30) Priority Data:
PN 6164 — 23 October 1995 (23.10.95) — AU
PN 9047 — 1 April 1996 (01.04.96) — AU

(71) Applicant *(for all designated States except US)*: HYAL PHARMACEUTICAL AUSTRALIA LIMITED [AU/AU]; Level 2, 44A Kings Park Road, West Perth, W.A. 6009 (AU).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: RAKOCZY, Piroska, Elizabeth [AU/AU]; Lions Eye Institute, 2 Verdun Street, Nedlands, W.A. 6009 (AU). CONSTABLE, Ian, Jeffrey [AU/AU]; Lions Eye Institute, 2 Verdun Street, Nedlands, W.A. 6009 (AU).

(74) Agent: SANTER, Vivien; Griffith Hack, 509 St. Kilda Road, Melbourne, VIC 3004 (AU).

(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ARIPO patent (KE, LS, MW, SD, SZ, UG), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: HYALURONIC ACID AS DNA CARRIER FOR GENE THERAPY AND VEGF ANTISENSE DNA TO TREAT ABNORMAL RETINAL VASCULARIZATION

(57) Abstract

The invention provides methods and compositions for gene therapy, including antisense therapy. In one embodiment, the compositions comprise hyaluronic acid to promote uptake of nucleic acid by the target cells. The invention is illustrated with reference to treatment of retinal diseases caused by neovascularisation.