

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

(19) World Intellectual Property
Organization
International Bureau



(10) International Publication Number
WO 2023/089151 A1

(43) International Publication Date
25 May 2023 (25.05.2023)

(51) International Patent Classification:

A61K 38/17 (2006.01) *A61K 35/76* (2015.01)
A61P 27/02 (2006.01) *C12N 15/86* (2006.01)
C12N 7/00 (2006.01)

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))

(21) International Application Number:

PCT/EP2022/082518

(22) International Filing Date:

18 November 2022 (18.11.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

63/281,360 19 November 2021 (19.11.2021) US

(71) Applicant: **THE UNIVERSITY OF BRISTOL** [GB/GB];
Beacon House, Queens Road, Bristol, BS8 1QU (GB).

(72) Inventors: **CHAN, Ying Kai**; c/o The University of Bristol, Beacon House, Queens Road, Bristol, BS8 1QU (GB).
DICK, Andrew; c/o The University of Bristol, Beacon House, Queens Road, Bristol, BS8 1QU (GB). **LIU, Jian**; c/o The University of Bristol, Beacon House, Queens Road, Bristol, BS8 1QU (GB).

(74) Agent: **MEWBURN ELLIS LLP**; Aurora Building, Counterslip, Bristol, BS1 6BX (GB).

(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, 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, 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: MATERIALS AND METHODS FOR TREATMENT OF MACULAR DEGENERATION

(57) Abstract: The present invention relates to an agent that increases expression of IRAK-M and/or activity of IRAK-M for use in a method of treatment or prophylaxis of macular degeneration in a subject. The agent may be one or more of a small molecule, a nucleic acid, a vector virion, a polypeptide, a nucleic acid system, a viral vector system, or a pharmaceutical composition.

WO 2023/089151 A1