

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
28 July 2022 (28.07.2022)



(10) International Publication Number
WO 2022/157281 A1

(51) International Patent Classification:
A61P 19/02 (2006.01) *C07K 16/28* (2006.01)

(21) International Application Number:
PCT/EP2022/051297

(22) International Filing Date:
21 January 2022 (21.01.2022)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10202100687X 21 January 2021 (21.01.2021) SG
10202109307T 25 August 2021 (25.08.2021) SG

(71) Applicants: **AGENCY FOR SCIENCE, TECHNOLOGY AND RESEARCH** [SG/SG]; 1 Fusionopolis Way, #20-10 Connexis North Tower, Singapore 138632 (SG).
TAN TOCK SENG HOSPITAL PTE LTD [SG/SG]; 11 Jalan Tan Tock Seng, Tan Tock Seng Hospital, Singapore 308433 (SG).

(71) Applicant (for LS only): **CLEGG, Richard Ian** [GB/GB]; Aurora Building, Counterslip, Bristol Bristol BS16BX (GB).

(72) Inventors: **BARD, Frederic**; 61 Proteos, Biopolis Drive, Singapore 138673 (SG). **TRAN, Le Son**; 61 Proteos, Biopolis Drive, Singapore 138673 (SG). **LEONG, Khai Pang**; c/o Department of Rheumatology, Allergy and Immunology, 11 Tan Tock Seng Hospital, Jalan Tan Tock Seng, Singapore 308433 (SG). **CHIA, Joanne Zhi Hui**; Agency for Science, Technology and Research, 1 Fusionopolis Way, #20-10 Connexis North Tower, Singapore 138632 (SG).

(74) Agent: **MEWBURN ELLIS LLP**; Aurora Building, Counterslip, Bristol 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, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, 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.

(54) Title: METHOD

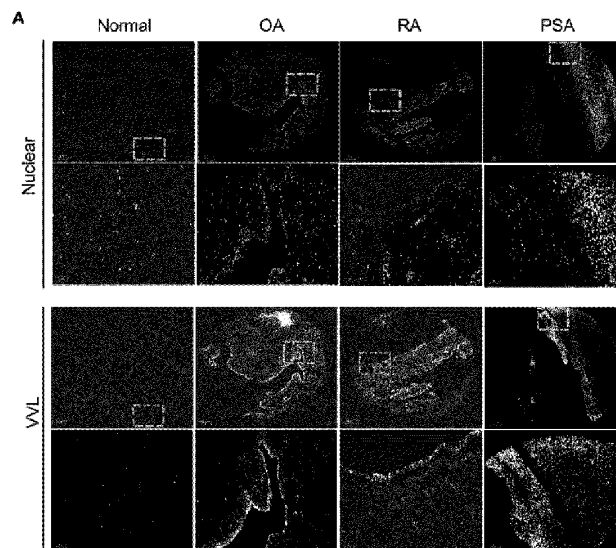


Figure 1

(57) Abstract: Disclosed herein are methods and treatments for cartilage degradation, wherein the method comprises administration of a therapeutic agent which inhibits the GalNAc-T activation (GALA) pathway.

[Continued on next page]

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, 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, 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).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

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))*
— *with sequence listing part of description (Rule 5.2(a))*