

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
23 July 2020 (23.07.2020)



(10) International Publication Number
WO 2020/150473 A2

(51) International Patent Classification:
A61K 31/506 (2006.01)

(21) International Application Number:
PCT/US2020/013881

(22) International Filing Date:
16 January 2020 (16.01.2020)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/794,234 18 January 2019 (18.01.2019) US

(71) Applicant: **DOGMA THERAPEUTICS, INC.** [US/US];
4 Dana Road, Boxford, MA 01921 (US).

(72) Inventors: **SERRANO-WU, Michael H.**; 4 Elizabeth Road, Belmont, MA 02478 (US). **CHAMBERS, Mark**; Chesterford Research Park, Cambridge CB10 1XL (GB). **GOLDSMITH, Erica**; Chesterford Research Park, Cambridge CB10 1XL (GB). **TIERNEY, Jason**; Chesterford Research Park, Cambridge CB10 1XL (GB). **JAN-DU, Karamjit**; Chesterford Research Park, Cambridge CB10 1XL (GB). **CLARK, David**; Chesterford Research Park, Cambridge CB10 1XL (GB). **HINCHLIFFE, Paul**; Chesterford Research Park, Cambridge CB10 1XL (GB).

(74) Agent: **HALSTEAD, David P.** et al.; Foley Hoag LLP, 155 Seaport Boulevard, Boston, MA 02210-2600 (US).

(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, 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.

(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).

(54) Title: PCSK9 INHIBITORS AND METHODS OF USE THEREOF

(57) Abstract: The invention relates to novel heteroaryl compounds and pharmaceutical preparations thereof. The invention further relates to methods of treating or preventing cardiovascular diseases, and methods treating sepsis or septic shock, using the novel heterocyclic compounds disclosed herein.

WO 2020/150473 A2