

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
30 April 2020 (30.04.2020)



(10) International Publication Number
WO 2020/084300 A1

(51) International Patent Classification:

C07D 403/14 (2006.01) C07D 471/04 (2006.01)
C07D 413/14 (2006.01) A61K 31/4725 (2006.01)
C07D 417/14 (2006.01)

(21) International Application Number:

PCT/GB2019/053012

(22) International Filing Date:

22 October 2019 (22.10.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1817193.4 22 October 2018 (22.10.2018) GB
1907674.4 30 May 2019 (30.05.2019) GB

(71) Applicant: **C4X DISCOVERY LIMITED** [GB/GB];
Manchester One, 53 Portland Street, Manchester, M1 3LD
(GB).

(72) Inventors: **BLANEY, Emma Louise**; C4X Discovery Limited, Manchester One, 53 Portland Street, Manchester, M1 3LD (GB). **CRICK, Duncan James**; C4X Discovery Limited, Manchester One, 53 Portland Street, Manchester, M1 3LD (GB). **CRUMPLER, Simon Ross**; Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **HYND, George**; Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **LUCAS, Cathy Louise**; C4X Discovery Limited, Manchester One, 53 Portland Street, Manchester, M1 3LD (GB). **MARTIN, Barrie Phillip**; C4X Discovery Limited, Manchester One, 53 Portland Street, Manchester, M1 3LD (GB). **RAY, Nick Charles**; C4X Discovery Limited, Euston House, 4th Floor, 24 Eversholt Street, London, NW1 1AD (GB). **SEWARD, Eileen Mary**; Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **EVANS, David Gareth**; Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Essex, CM19 5TR (GB). **LE BOZEC, Lucille**; Charles River Discovery Research Services UK Limited, Chesterford Research Park, Saffron Walden, CB10 1XL (GB). **NOWAK, Thorsten**; c/o C4X Discovery Limited, Manchester One, 53 Portland Street, Manchester, M1 3LD (GB). **RUSSELL, Michael Geoffrey Neil**; c/o Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **YEAP, Siew Kuen**; c/o Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **ROUSSEL, Fabien Jean Ghislain**; Charles River Discovery Research Services

UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB). **SEHMI, Sanjeet Singh**; Charles River Discovery Research Services UK Limited, 8/9 Spire Green Centre, Harlow, Essex, CM19 5TR (GB).

(74) Agent: **HGF LIMITED**; 4th Floor, Merchant Exchange, 17-19 Whitworth Street West, Manchester, Greater Manchester M1 5WG (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, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

(54) Title: THERAPEUTIC COMPOUNDS

(57) Abstract: The present invention relates to compounds that are Nrf2 activators. The compounds have the structural formula I defined herein. The present invention also relates to processes for the preparation of these compounds, to pharmaceutical compositions comprising them, and to their use in the treatment of diseases or disorders associated with Nrf2 activation.



WO 2020/084300 A1