



- (51) International Patent Classification:
C07D 417/14 (2006.01) *A61K 31/53* (2006.01)
A61K 31/501 (2006.01) *A61P 35/00* (2006.01)
- (21) International Application Number:
PCT/GB2015/051537
- (22) International Filing Date:
27 May 2015 (27.05.2015)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
1409624.2 30 May 2014 (30.05.2014) GB
- (71) Applicants: **ASTRAZENECA AB** [SE/SE]; SE-151 85 Södertälje (SE). **CANCER RESEARCH TECHNOLOGY LIMITED** [GB/GB]; Angel Building, 407 St John Street, London, Greater London EC1V 4AD (GB).
- (72) Inventors: **FINLAY, Maurice Raymond Verschoyle**; AstraZeneca R&D Cambridge, Darwin Building, Cambridge Science Park, Milton Road, Cambridge, Cambridgeshire CB4 0FZ (GB). **EKWURU, Chukuemeka Tennyson**; Cancer Research Technology, The Jonas Webb Building, Babraham Research Campus, Cambridge, Cambridgeshire CB22 3AT (GB). **CHARLES, Mark David**; Cancer Research Technology, The Jonas Webb Building, Babraham Research Campus, Cambridge, Cambridgeshire CB22 3AT (GB). **RAUBO, Piotr Antoni**; AstraZeneca R&D Alderley, Alderley Park, Macclesfield, Cheshire SK10 4TG (GB). **WINTER, Jonathan James Gordon**; AstraZeneca R&D Alderley, Alderley Park, Macclesfield, Cheshire

SK10 4TG (GB). **NISSINK, Johannes Wilhelmus Maria**; AstraZeneca R&D Cambridge, Darwin Building, Cambridge Science Park, Milton Road, CB4 0FZ Cambridge (NL).

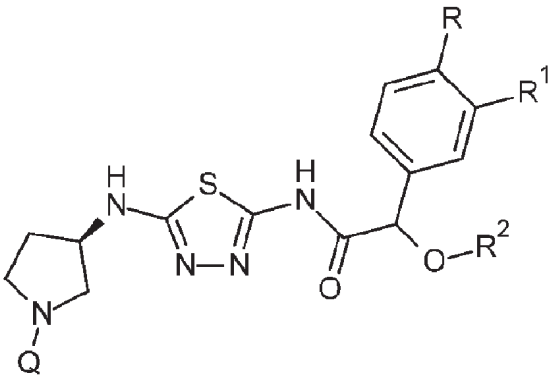
(74) Agent: **ASTRAZENECA INTELLECTUAL PROPERTY**; AstraZeneca R&D Alderley, Alderley Park, Macclesfield, Cheshire SK10 4TG (GB).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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).

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

(54) Title: 1, 3, 4-THIADIAZOLE COMPOUNDS AND THEIR USE IN TREATING CANCER



(I)

(57) Abstract: The specification relates to compounds of Formula (I), and pharmaceutically acceptable salts thereof, where Q, R, R¹ and R² have any of the meanings defined herein. The specification also relates to the use of such compounds and salts thereof to treat or prevent GLS1 mediated disease, including cancer. The specification further relates to crystalline forms of compounds of Formula (I) and pharmaceutically acceptable salts thereof; pharmaceutical compositions comprising such compounds and salts; kits comprising such compounds and salts; methods of manufacture of such compounds and salts; intermediates useful in the manufacture of such compounds and salts; and to methods of treating GLS1 kinase mediated disease, including cancer, using such compounds and salts.