



(51) International Patent Classification:

C07D 213/65 (2006.01) **C07C 311/07** (2006.01)
C07D 307/22 (2006.01) **A61K 31/341** (2006.01)
C07D 307/42 (2006.01) **A61K 31/381** (2006.01)
C07D 333/38 (2006.01) **A61K 31/402** (2006.01)
C07D 405/12 (2006.01) **A61K 31/443** (2006.01)
C07D 409/12 (2006.01) **A61K 31/4453** (2006.01)
C07D 409/14 (2006.01) **A61K 31/4709** (2006.01)
C07D 295/096 (2006.01)

(21) International Application Number:

PCT/IB2010/052827

(22) International Filing Date:

22 June 2010 (22.06.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/220,625 26 June 2009 (26.06.2009) US

(71) **Applicant** (for all designated States except US): **PFIZER INC.** [US/US]; 235 East 42nd Street, New York, New York 10017 (US).

(72) Inventors; and

(75) **Inventors/Applicants** (for US only): **FLIRI, Anton Franz Joseph** [AT/US]; 206 Jerry Browne Road, Stonington, Connecticut 06378 (US). **GALLASCHUN, Randall James** [US/US]; 131 Sisson Road, Lebanon, Connecticut 06249 (US). **O'DONNELL, Christopher John** [US/US]; Pfizer Global Research and Development, Eastern Point Road, Groton, Connecticut 06340 (US). **SCHWARZ, Jacob Bradley** [US/US]; 7211 Balmoral Way, San Ramon, California 94582 (US). **SEGELSTEIN, Barbara Eileen** [US/US]; 16 Woodland Lane, Gales Ferry, Connecticut 06335 (US).

(74) **Agent**: **BENSON, Gregg C.**; Pfizer Inc., Eastern Point Road MS9114, Groton, CT 06340 (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, 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, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

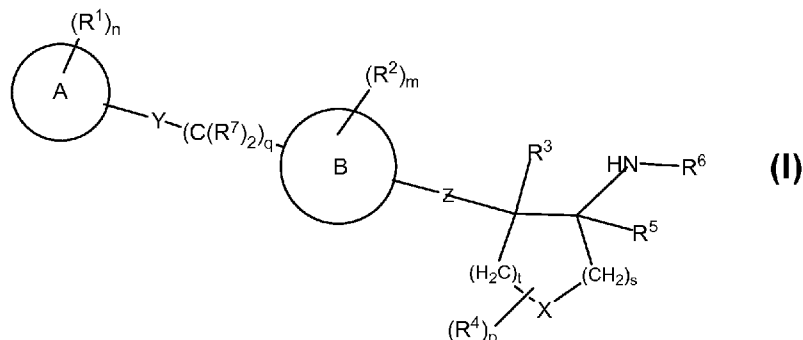
Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

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))

(54) **Title**: HETEROCYCLIC SULFONAMIDES, USES AND PHARMACEUTICAL COMPOSITIONS THEREOF



(57) **Abstract**: The invention is directed to a class of compounds, including the pharmaceutically acceptable salts of the compounds, having the structure of formula (I) as defined in the specification. The invention is also directed to compositions containing and uses of the compounds of formula I.