

REVISED VERSION

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
8 July 2010 (08.07.2010)

PCT

(10) International Publication Number
WO 2010/076033 A9

(51) International Patent Classification:

C07C 311/21 (2006.01) **C07D 333/36** (2006.01)
C07D 213/76 (2006.01) **C07D 207/416** (2006.01)
C07D 231/42 (2006.01) **A61P 35/00** (2006.01)
C07D 249/14 (2006.01) **A61K 31/18** (2006.01)
C07D 257/04 (2006.01) **A61K 31/41** (2006.01)
C07D 261/16 (2006.01) **A61K 31/341** (2006.01)
C07D 277/52 (2006.01) **A61K 31/381** (2006.01)
C07D 307/66 (2006.01)

(30) Priority Data:

PCT/EP2008/011147

30 December 2008 (30.12.2008)

EP

(71) Applicants (for all designated States except US): **EUROPEAN MOLECULAR BIOLOGY LABORATORY (EMBL)** [DE/DE]; Meyerhofstrasse 1, 69117 Heidelberg (DE). **ELARA PHARMACEUTICALS GMBH** [DE/DE]; Boxbergstr. 107, 69126 Heidelberg (DE).

(21) International Application Number:

PCT/EP2009/009337

(22) International Filing Date:

30 December 2009 (30.12.2009)

(25) Filing Language:

English

(26) Publication Language:

English

(72) Inventors; and

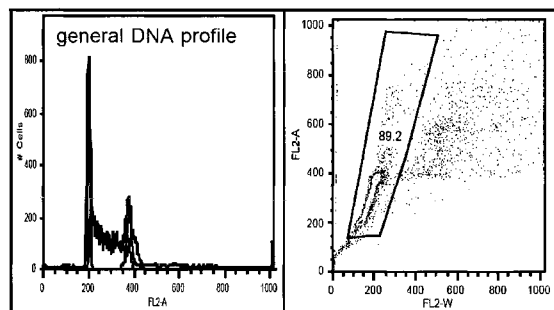
(75) Inventors/Applicants (for US only): **ALONSO, Jorge** [ES/DE]; Waldparkstrasse 34, 68163 Mannheim (DE). **LOPEZ, Arantxa** [ES/DE]; Amalienstrasse 14a, 76133 Karlsruhe (DE). **MUELBAIER, Marcel** [DE/DE]; Unterm Weinberg 1, 69256 Mauer (DE). **AMMENN, Jochen** [DE/DE]; Buechertstrasse 4/9, 69207 Sandhausen (DE). **WENDT, Bernd** [DE/DE]; Brunnenstrasse 4a, 86938 Schondorf am Ammersee (DE). **LEWIS, Joe** [GB/DE]; Sinsheimerstrasse 19, 69234 Dielheim (DE).

[Continued on next page]

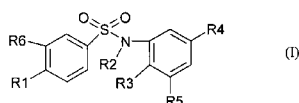
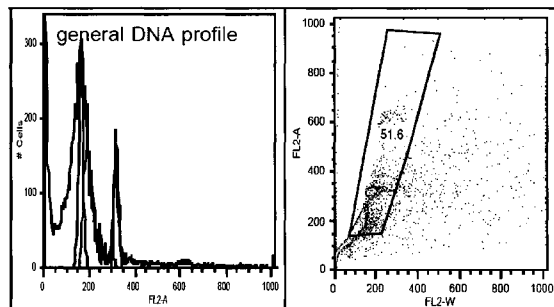
(54) Title: TOLUIDINE SULFONAMIDES AND THEIR USE

Fig. 1

DMSO control (0.1% DMSO)



Compound of example 47 of Table 2A (20µM, 0.1% DMSO)



(57) Abstract: The present invention provides novel compounds that inhibit cell proliferation and cell division and that inhibit the activation of Hypoxia Inducible Factor (HIF)-mediated transcription and signaling under hypoxic conditions. In one aspect, the compounds of the present invention are useful for the preparation of a medicament for the treatment or prevention of a disease or disorder selected from the group consisting of an inflammatory disease, a hyperproliferative disease or disorder, a hypoxia-related pathology and a disease characterized by excessive vascularisation. Also provided is a pharmaceutical composition comprising a compound of the invention and a second therapeutic agent or radiation useful for the treatment or prevention of the mentioned diseases or disorders. In a first aspect the present invention relates to a compound having a structure according to formula (I).



SCHULTES, Cristoph [DE/DE]; Am Oberen Luisenpark 22, 68165 Mannheim (DE). JANSSEN, Bernd [DE/US]; 8 Bowers Road, Harvard, MA 01451 (US).

(74) **Agent:** ZWICKER, Jörk; Geibelstrasse 5, 81679 München (DE).

(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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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).

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))

(88) **Date of publication of the revised international search report:**

26 August 2010

(15) **Information about Correction:**
see Notice of 26 August 2010