

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
23 October 2008 (23.10.2008)

PCT

(10) International Publication Number
WO 2008/128171 A3

(51) International Patent Classification:
A61K 31/55 (2006.01) **C07D 487/00** (2006.01)
A61P 35/00 (2006.01)

(74) Agents: **GOETZ, Robert, A.** et al.; Casimir Jones, S.C.,
440 Science Drive, Suite 203, Madison, WI 53711 (US).

(21) International Application Number:
PCT/US2008/060215

(22) International Filing Date: 14 April 2008 (14.04.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/923,348 13 April 2007 (13.04.2007) 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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **THE REGENTS OF THE UNIVERSITY OF MICHIGAN** [US/US]; 3003 South State Street, Ann Arbor, MI 48109 (US).

(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, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **WANG, Shaomeng** [US/US]; 9343 Yorkshire Drive, Saline, MI 48176 (US). **PENG, Yuefeng** [CN/US]; 2666 Arrowwood Trail, Ann Arbor, MI 48105 (US). **SUN, Haiying** [CN/US]; 1515 Jones Drive, Apt. 14, Ann Arbor, MI 48105 (US). **CAI, Qian** [CN/US]; 1512 Plymouth Road, Apt. 64, Ann Arbor, MI 48105 (US). **NIKOLOVSKA-COLESKA, Zaneta** [MK/US]; 1425 McIntyre Drive, Ann Arbor, MI 48105 (US). **LU, Jianfeng** [CN/US]; 1501 Jones Drive, Ann Arbor, MI 48105 (US). **QIU, Su** [CN/US]; 3309 Honeysuckle Drive, Ann Arbor, MI 48103 (US).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
11 December 2008

(54) Title: DIAZO BICYCLIC SMAC MIMETICS AND THE USES THEREOF

(57) Abstract: The invention relates to diazo bicyclic mimetics of Smac which function as inhibitors of Inhibitor of Apoptosis Proteins. The invention also relates to the use of these mimetics for inducing apoptotic cell death and for sensitizing cells to inducers of apoptosis.



WO 2008/128171 A3