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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
30 October 2008 (30.10.2008)

PCT

(10) International Publication Number
WO 2008/128730 A3

(51) International Patent Classification:
G01N 33/50 (2006.01) *C07K 14/705* (2006.01)

(21) International Application Number:
PCT/EP2008/003156

(22) International Filing Date: 18 April 2008 (18.04.2008)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
07007910.8 18 April 2007 (18.04.2007) EP
60/923,994 18 April 2007 (18.04.2007) US

(71) Applicant *(for all designated States except US)*: **DEUTSCHES INSTITUT FÜR ERNÄHRUNGSFORSCHUNG POTSDAM-REHBRÜCKE STIFTUNG DES ÖFFENTLICHEN RECHTS** [DE/DE]; Arthur-Scheunert-Allee 114-116, 14558 Nuthetal (DE).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **BUFE, Bernd** [DE/DE]; Beelitzer Strasse 33H, 14548 Ferch (DE). **KUHN, Christina** [DE/DE]; Am Nuthetal 5, 14558 Nuthetal (DE). **MEYERHOF, Wolfgang** [DE/DE]; Schubertring 27, 22848 Norderstedt (DE).

(74) Agents: **VOSSIUS, Volker** et al.; Geibelstrasse 6, 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, 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.

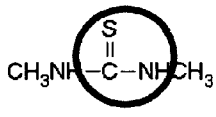
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, 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).

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*
— *with sequence listing part of description published separately in electronic form and available upon request from the International Bureau*

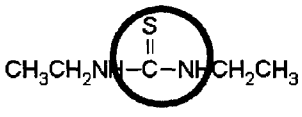
(88) Date of publication of the international search report:
15 January 2009

(54) Title: ANTAGONISTS OF BITTER TASTE RECEPTORS AND USES THEREOF

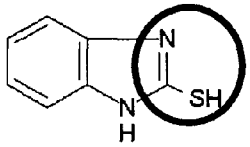
Fig. 1



Diemethylthiourea



Diethylthiourea



Mercaptobenzimidazole

(57) Abstract: The present invention relates to antagonists of the human bitter-taste receptors hTAS2R38. The invention also relates to methods for identifying further molecules that suppress hTAS2R38 mediated bitter taste transduction or bitter taste response and uses thereof.

WO 2008/128730 A3