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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
31 May 2012 (31.05.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/069202 A1

(51) International Patent Classification:
C07D 471/04 (2006.01) *A61P 37/06* (2006.01)
C07D 487/04 (2006.01) *A61P 35/00* (2006.01)
A61K 31/5025 (2006.01) *A61P 35/02* (2006.01)

(21) International Application Number:
PCT/EP2011/005929

(22) International Filing Date:
24 November 2011 (24.11.2011)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10382318.3 26 November 2010 (26.11.2010) EP
61/436,212 26 January 2011 (26.01.2011) US

(71) Applicant *(for all designated States except US)*: **ALMIRALL,S.A.** [ES/ES]; Ronda del General Mitre 151, 08022 Barcelona (ES).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **GONZALEZ RODRIGUEZ, Jacob** [ES/ES]; Laurea Miró 408-410, 08980 Sant Feliu de Llobregat, Barcelona (ES). **VIDAL JUAN, Bernat** [ES/ES]; Laurea Miró 408-410, 08980 Sant Feliu de Llobregat, Barcelona (ES). **VIDAL GISPERT, Laura** [ES/ES]; Laurea Miró 408-410, 08980 Sant Feliu de Llobregat, Barcelona (ES). **BACH TAÑA Jordi** [ES/ES]; Laurea Miró 408-410, 08980 Sant Feliu de Llobregat, Barcelona (ES).

(74) Agent: **SRINIVASAN, Ravi Chandran**; J.A. Kemp & Co., 14 South Square, Gray's Inn, London WC1R 5JJ (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, 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, QA, RO, RS, RU, RW, 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.

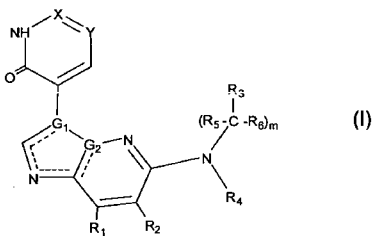
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, 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))*

WO 2012/069202 A1

(54) **Title**: IMIDAZO [1,2-B] PYRIDAZINE AND IMIDAZO [4,5-B] PYRIDINE DERIVATIVES AS JAK INHIBITORS



(I)

(57) **Abstract**: New imidazo[1,2-b]pyridazine and imidazo[4,5-b]pyridine derivatives having the chemical structure of formula (I) are disclosed; as well as process for their preparation, pharmaceutical compositions comprising them and their use in therapy as inhibitors of Janus Kinases (JAK).