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(71) Applicant *(for all designated States except US)*: **NOVARTIS AG** [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **JOHNS, Donald** [US/US]; Novartis Institutes for BioMedical Research, Inc., 220 Massachusetts Avenue, Cambridge, Massachusetts 02139 (US). **EVANS, Thomas George** [US/CN]; China NIBR, Building 8, Lane 898 Halei Rd, Zhangjiang Hi-Tech Park, Pudong New Area, Shanghai, 201203 (CN).

(74) Agent: **VOEGELI-LANGE, Regina**; Novartis Pharma AG, Patent Department, CH-4002 Basel (CH).

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(54) Title: COMBINATION COMPRISING A CANNABINOID RECEPTOR BINDING COMPOUND AND AN OPIOID

(57) Abstract: The present invention relates to novel combinations suitable for the treatment or amelioration of pain of various genesis or aetiology, which comprise, as active ingredients, at least one cannabinoid receptor binding compound, in particular a cannabinoid receptor binding naphthalene derivative, and at least one opioid, to their preparation, to their use as medicaments and to medicaments comprising them.

INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K31/015 A61K31/121 A61K31/135 A61K31/4468 A61K31/485
A61K45/06 A61P25/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, WPI Data, EMBASE, BIOSIS, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2007/001891 A (ALLTRANZ LLC [US]; STINCHCOMB AUDRA L [US]; NALLURI BUCHI N [US]) 4 January 2007 (2007-01-04) page 8, paragraphs 2,3; claims 16,17 page 10, paragraph 1	1-2,4-12
X	WO 2007/006732 A (ORGANON NV [NL]; ADAM-WORRALL JULIA [GB]; HILL DAVID ROBERT [GB]; COTT) 18 January 2007 (2007-01-18)	1,4-12
Y	claims; examples	1-14
Y	WO 02/42248 A (NOVARTIS AG [CH]; NOVARTIS ERFIND VERWALT GMBH [AT]; BRAIN CHRISTOPHER) 30 May 2002 (2002-05-30) cited in the application claims 8,10	1-14

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[X] Further documents are listed in the continuation of Box C.

[X] See patent family annex.

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Date of the actual completion of the international search	Date of mailing of the international search report
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Name and mailing address of the ISA/	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Winger, Rudolf

INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MELAMEDE ROBERT: "Harm reduction--the cannabis paradox." HARM REDUCTION JOURNAL 22 SEP 2005, vol. 2, 22 September 2005 (2005-09-22), page 17, XP021008796 ISSN: 1477-7517	1,4-12
Y	page 6, left-hand column	1-14
X	FINN D P ET AL: "Cannabinoids as analgesic agents: Evidence from in vivo studies" CURRENT NEUROPHARMACOLOGY, vol. 2, no. 1, January 2004 (2004-01), pages 75-89, XP001207506 ISSN: 1570-159X	1,4-12
Y	page 84, left-hand column	1-14

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/EP2009/052297

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007001891 A	04-01-2007	EP 1895960 A1	12-03-2008
WO 2007006732 A	18-01-2007	AU 2006268680 A1	18-01-2007
		CA 2614528 A1	18-01-2007
		JP 2009500439 T	08-01-2009
		US 2009029984 A1	29-01-2009
WO 0242248 A	30-05-2002	AU 2635002 A	03-06-2002
		BR 0115605 A	16-09-2003
		CA 2427844 A1	30-05-2002
		CN 1476424 A	18-02-2004
		CZ 20031424 A3	13-08-2003
		EC SP034574 A	26-05-2003
		EP 1339663 A2	03-09-2003
		HU 0302125 A2	28-10-2003
		JP 2004514663 T	20-05-2004
		JP 2008050361 A	06-03-2008
		MX PA03004593 A	04-09-2003
		NO 20032327 A	18-07-2003
		NZ 548553 A	28-03-2008
		PL 361142 A1	20-09-2004
		RU 2354646 C2	10-05-2009
		SK 6222003 A3	07-10-2003
		US 2004053890 A1	18-03-2004
		ZA 200302916 A	23-04-2004