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(71) Applicant (for all designated States except US): **GLAXO GROUP LIMITED** [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford Middlesex UB6 0NN (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **PERBONI, Alcide** [IT/IT]; GlaxoSmithKline SpA, Via Alessandro Fleming 2, I-37100 Verona (IT). **GIUBELLINA, Nicola** [IT/IT]; GlaxoSmithKline SpA, Via Alessandro Fleming 2, I-37100 Verona (IT).

(74) Agents: **KONDO, Rie** et al.; GlaxoSmithKline, Corporate Intellectual Property (CN925.1), 980 Great West Road, Brentford Middlesex TW8 9GS (GB).

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))
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(54) Title: IMPROVED PROCESS OF AMIDE FORMATION

(57) Abstract: A process for the formation of 2-(methoxy)-N-[2-methyl-1-phenyl-2-(1-pyrrolidinyl)propyl]-4,6-bis(trifluoromethyl)benzamide is disclosed, comprising treatment of 2,4-difluoromethyl-6-methoxy-benzoic acid with an arylsulphonyl halide, C<sub>1-6</sub>alkylsulphonyl halide or di-C<sub>1-6</sub>alkylphosphoryl chloride, in the presence of a base and an aprotic solvent; followed by reaction with [2-methyl-1-phenyl-2-(1-pyrrolidinyl)propyl]amine or a salt thereof. Also disclosed is a process for the formation of [2-methyl-1-phenyl-2-(1-pyrrolidinyl)propyl]amine comprising: i) treatment of an  $\alpha$ -haloketone with an alcohol in the presence of a base followed by reaction with pyrrolidine; ii) treatment of the product of stage i) with Ar-CH(R<sup>5</sup>)NH<sub>2</sub> wherein R<sup>5</sup> is C<sub>1-4</sub>alkyl and Ar is optionally substituted phenyl, followed by reduction with a sodium borohydride derivative; and iii) reduction of the product of stage ii) with hydrogen and a palladium catalyst. Also disclosed is the novel compound 2-pyrrolidinyl-2-methylpropiofenone or a salt or solvate thereof.



WO 2008/155334 A3

## INTERNATIONAL SEARCH REPORT

International application No

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A. CLASSIFICATION OF SUBJECT MATTER  
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Minimum documentation searched (classification system followed by classification symbols)  
C07D

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, 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 2006/067423 A (GLAXO GROUP LTD [GB]; BRADLEY DANIEL MARCUS [GB]; BRANCH CLIVE LESLIE) 29 June 2006 (2006-06-29) cited in the application claims 1-3,13; example 15	1-10
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P,X	page 30; example 4	1

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Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040,  
Fax: (+31-70) 340-3016

Authorized officer

Goss, Ilaria

# INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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