

Internal distribution code:

- (A) [] Publication in OJ
(B) [] To Chairmen and Members
(C) [X] To Chairmen
(D) [] No distribution

D E C I S I O N
of 28 September 2004

Case Number: T 0319/02 - 3.3.1

Application Number: 96903000.6

Publication Number: 0812321

IPC: C07D 413/04

Language of the proceedings: EN

Title of invention:
Prokinetic oxadiazoles

Applicant:
JANSSEN PHARMACEUTICA N.V.

Opponent:
-

Headword:
Prokinetics oxadiazole/JANSSEN

Relevant legal provisions:
EPC Art. 54, 56, 123(2)

Keyword:
"Main and sole request: claim 1 - inventive step (yes) - non obvious solution"
"Remittal to the first instance for further prosecution"

Decisions cited:
G 0001/03

Catchword:
-



Case Number: T 0319/02 - 3.3.1

D E C I S I O N
of the Technical Board of Appeal 3.3.1
of 28 September 2004

Appellant: JANSSEN PHARMACEUTICA N.V.
Turnhoutseweg 30
B-2340 Beerse (BE)

Representative: Quaghebeur, Luc
Janssen Pharmaceutica N.V.
Patent Department
Turnhoutseweg 30
B-2340 Beerse (BE)

Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 21 September 2001
refusing European application No. 96903000.6
pursuant to Article 97(1) EPC.

Composition of the Board:

Chairman: A. J. Nuss
Members: P. F. Ranguis
R. T. Menapace

III. The following documents were cited in the examining proceedings:

- (1) JP-A- 61 57518, abstract and machine assisted translation of the document
- (3) EP-A- 76 530
- (4) EP-A- 389 037
- (5) EP-A- 445 862
- (6) WO-A- 93 02677
- (7) WO-A- 94 10174
- (8) WO-A- 94 08994
- (9) WO-A- 94 08995

In its decision, the Examining Division held that starting from document (1) as the closest state of the art, in particular example No. 8, the technical problem to be solved could be seen in the provision of further oxadiazoles having effect on the motility of the colon. The Examining Division considered that a qualitative effect on motility of the intestines could be expected to be maintained in making minor structural modifications, for instance, replacement of the methyl group attached to the nitrogen atom of the 4-piperidyl moiety of example No. 8 of document (1) by an ethyl group, which modifications led to compounds within the scope of Claim 1. The person skilled in the art would have, therefore, solved the technical problem without inventive ingenuity.

IV. In the statement of grounds of appeal received on 18 January 2002, the Appellant requested as main request that the decision under appeal be set aside and submitted as auxiliary request a fresh set of claims.

VII. The Appellant requested that the decision under appeal be set aside and that the case be remitted to the first instance with the order to grant a patent on the basis of the request before the Board (cf. point VI above).

Reasons for the Decision

1. The appeal is admissible.

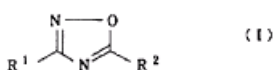
2. *Article 123(2) EPC - Amendments*

2.1 Compared to Claim 1 as originally filed, present Claim 1 was restricted to a compound of formula (I) wherein the group R⁵ was limited to cyano or tetrahydrofuran and R⁶ was limited to C₁₋₆alkyl, hydroxyC₁₋₆alkyl, or phenyl substituted with halo. Those amendments are supported by the application as filed (cf. page 3, line 38 to page 4, line 2). Present Claims 2 to 11 correspond to Claims 2 to 11 as originally filed.

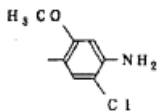
2.2 In view of the above, it is concluded that the amendments meet the requirements of Article 123(2) EPC.

3. *Article 54 EPC - Novelty*

3.1 Document (1) discloses an oxazole derivative, useful as a 5-HT₄ receptor agonist as a medicine, of formula



wherein one of R¹ or R² is



and the other is a group of formula -A-Het, wherein A is a single bond or a lower alkylene group, Het is a non-aromatic ring heterocyclic ring group of condensation or a single ring which contains one nitrogen atom at least (cf. page 4/48).

Such a disclosure does not anticipate the subject-matter of Claim 1 at least since it does not disclose unambiguously a compound wherein the heterocyclic ring is a 4-piperidyl group substituted in the 1-position by a group R⁵ or R⁶ as defined in Claim 1.

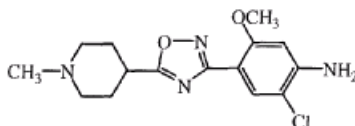
- 3.2 Documents (3), (4), (5) disclose compounds as stimulators of the motility of the gastro-intestinal system comprising in place of an 1,2,4-oxadiazole moiety an amide linkage. For that reason, the subject-matter of Claim 1 is novel in view of those disclosures.
- 3.3 The subject-matter of Claim 1 is also novel in view of Document (6) which discloses as Example No. 14 the 5-[3-(Piperidino)propyl]-3-(2-methoxy-4-amino-5-chlorophen-1-yl)-1,2,4-oxadiazole acting as a 5-HT₄ receptor antagonist to treat, in particular, upper gut motility (cf. page 20; page 6, line 15 and page 38).
- 3.4 Documents (7), (8) and (9) disclose compounds as 5-HT₄ receptor antagonists comprising in place of an 1,2,4-oxadiazole moiety an amide or ester linkage and for that reason, the subject-matter of Claim 1 is novel in view of those disclosures. It is true that those

documents mention that the oxadiazole moiety may be a suitable biostere for the amide moiety (cf. page 4, line 31 to page 5, line 6; page 5, lines 1 to 14 and page 4, line 35 to page 5, line 11 respectively). However no compound is disclosed in that respect.

4. *Article 56 EPC - Inventive step*

4.1 In the preamble of the description of the invention, documents (3) to (9) are acknowledged. After having discussed those documents, the description goes on to state that the compounds according to the invention show favourable intestinal motility-stimulating properties, in particular they show motility-enhancing effects on the colon (cf. page 1, lines 11 to 24).

4.2 However, document (1) is closer than the other documents cited in the description of the application since it relates to compounds useful in particular for the treatment of pseudo-intestinal obstruction (cf. page 16/48, effect of the invention), an objective identical to that of the claimed invention (cf. page 9, line 9); and since the compounds comprise an oxadiazole moiety, the sole difference between compound No. 8 of formula



(3-(4-amino-5-chloro-2-methoxyphenyl)-5-(1-methyl-4-piperidyl)-1,2,4-oxadiazole, cf. page 30/48) and the claimed compounds being the replacement of the methyl group of the 4-piperidyl moiety by a group L as defined in Claim 1.

The Board is aware in that respect that the Appellant provided an experimental report showing that at a dose of 0.125 mg/kg, compound No. 8 is devoid of colon motility enhancing properties in the conscious dog (cf. statement of grounds of appeal). The Board observes nevertheless that it is known in the art that a dose of up to 10 mg/kg may be necessary to obtain the desired effect (cf. document (4), page 20, line 40). This is also confirmed by the present application (cf. page 9, lines 16 to 20). If the Appellant has shown that for a rather low dose compound No. 8 is inactive, this is not sufficient to conclude that this compound is not suitable for treating pseudo-intestinal obstruction at a higher dose nevertheless within the commonly accepted range.

Therefore, the Board holds that the closest state of the art is compound No. 8 of document (1), which is useful in particular for the treatment of pseudo-intestinal obstruction.

4.3 In view of this closest state of the art, the technical problem to be solved is to be viewed in the provision of further compounds for use as a medicine useful for increasing the motility of the intestinal system, as actually stated in the application as originally filed (cf. point 4.1 above).

4.4 In view of the pharmacological example on page 14 of the application in suit, the Board is satisfied that the technical problem is solved.

4.5 It remains to be decided whether or not the subject-matter of Claim 1 is obvious in view of the state of the art. The question arises whether or not the person skilled in the art would have been directed in an obvious manner to replace the methyl group of the 4-piperidyl moiety of the compound No. 8 of document (1) by a group L as defined in Claim 1 to solve the technical problem mentioned above (cf. point 4.3).

4.5.1 Documents (3), (4) or (5), although disclosing compounds stimulating the motility of the gastrointestinal system, do not give any hint in that respect since they do not comprise an 1,2,4-oxadiazole moiety and are, therefore, structurally remote from the claimed compounds.

4.5.2 Documents (6), (7), (8) and (9) disclose 5-HT₄ antagonists which block the ability of 5-HT to stimulate gut motility, an effect inverse to that sought (cf. in particular, page 7, lines 33 to 38; page 7, lines 30 to 35 and page 7, lines 27 to 32 respectively) and are not relevant in that respect.

Since the prior art does not teach the person skilled in the art to design the claimed compounds for solving the technical problem defined above (cf. point 4.3), the subject-matter of Claim 1 meets the requirement of Article 56 EPC.

5. *Remittal to the first instance - Article 111(1) EPC*

5.1 The Board has come to the conclusion that the subject-matter of Claim 1 of the main and sole request meets the requirement of Article 56 EPC overcoming, therefore,

the sole reason for the refusal of the European application by the first instance.

- 5.2 Having regard to the fact that the function of the Boards of Appeal is primarily to give a judicial decision upon the correctness of the earlier decision taken by the first instance, the Board exercises its discretion under Article 111(1) EPC to remit the case to the first instance for further prosecution.
- 5.3 When examining the compliance of Claims 2 to 11 with EPC, the Examining Division should pay attention to Claim 8 which is dependent on Claim 6. It would seem that, rather, Claim 8 should be dependent on Claim 7.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of the set of eleven claims filed with the statement of grounds of appeal received on 18 January 2002 as auxiliary request.

The Registrar:

The Chairman:

N. Maslin

A. Nuss