DECISION
of 11 August 2000

Case Number: T 0309/95 - 3.3.1
Application Number: 87906607.4
Publication Number: 0285671
IPC: C07D 491/048

Language of the proceedings: EN

Title of invention: Pyridine derivatives

Applicant: Asahi Kasei Kogyo Kabushiki Kaisha

Opponent: -

Headword: Pyridine derivatives/ASHAI

Relevant legal provisions: EPC Art. 123(2), 84, 111(1)

Keyword: "Extension beyond the content of the application as filed (no)- admissible limitation of a generic chemical formula" "Clarity under Article 84 (yes, after amendment)" "Remittal to the first instance for further prosecution"

Decisions cited:
G 0001/93

Catchword: -
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DE C I S I O N
of the Technical Board of Appeal 3.3.1
of 11 August 2000

Appellant: Asahi Kasei Kogyo Kabushiki Kaisha
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Decision under appeal: Decision of the Examining Division of the
European Patent Office posted 17 August 1994
refusing European patent application
No. 87 906 607.4 pursuant to Article 97(1) EPC.

Composition of the Board:
Chairman: A. J. Nuss
Members: J. M. Jonk
J. P. B. Seitz
Summary of Facts and Submissions

I. This appeal lies from the decision of the Examining Division refusing the European patent application No. 87 906 607.4, published under No. 0 285 671, and relating to pyridine derivatives.

II. The decision was based on Claim 1 filed on 27 May 1994 and Claims 2 to 5 filed on 15 November 1988, the independent Claim 1, and the dependent Claims 3 and 4 reading as follows:

"1. Pyridine derivatives and 1,2,3,4-tetrahydropyridine derivatives represented by general formulae (I) and (II), respectively, or salts thereof:

\[
\begin{align*}
\text{(I)} & \quad \text{wherein A is a sulfur atom or an oxygen atom;} \\
& \quad \text{R}_1 \text{ is}
\end{align*}
\]

\[
\text{a methoxy, an ethoxy, a propyloxy, a hexyloxy or a benzyloxy group;}
\]
an amino group, which may be substituted by a C\textsubscript{1-6}-alkyl group, a hydrogen atom bonded to a carbon atom thereof may be substituted by an amino group, a carboxy group or an ester group;

an N-dimethylaminoethylamino group;

a hydrazino group; or

a 6- or 7-membered heterocyclic group having at least one N-atom which may be substituted by a C\textsubscript{1-6}-alkyl group, a phenyl group or a 5- to 7-membered heterocyclic group having an N-atom;

with the proviso that in formula (I), R\textsubscript{1} is not an alkoxy group;

R\textsubscript{2} and R\textsubscript{3} are a halogen atom, an alkyl group, an aryl group, an alkenyl group, an acyl group, or an arylcarbonyl group which have 1 to 20 carbon atoms and may be substituted by a halogen atom, an amino group, a nitro group, an alkoxy group having 1 to 6 carbon atoms or a phenyl group; and

m and n are an integer of from 0 to 4, with the proviso that when m is 2 or more, said R\textsubscript{3}(s) may be the same or different and that when n is 2 or more, said R\textsubscript{3}(s) may be the same or different."

"3. Pyridine derivatives, 1,2,3,4-tetrahydropyridine derivatives and salts thereof as claimed in claim 2, wherein R\textsubscript{1} is an unsubstituted or substituted amino group."
"4. Pyridine derivatives, 1,2,3,4-tetrahydropyridine derivatives and salts thereof as claimed in claim 2, wherein R₁ is an unsubstituted or substituted 6- or 7-membered heterocyclic group having at least one nitrogen atom."

III. The Examining Division held that the subject-matter of Claim 1 was novel, but that it did not involve an inventive step in the light of the cited documents

(1) EP-A-0 030 254,

(3) EP-A-0 094 271, and

(4) EP-A-0 003 920,

and because of lack of evidence that the claimed compounds showed an unexpected effect compared to the compounds of the closest prior art document (1) having the closest possible structural similarity.

In this context, they communicated on 8 November 1991 that suitable comparisons to demonstrate such an effect would have been: a comparison of compound 33 mentioned on page 9 of the application in suit filed with the letter of 2 November 1988 with compound 7 of document (1) (page 40), or a comparison of compound 39 indicated on page 10 of the application in suit filed with the letter of 2 November 1988 with compound 15 of document (1) (page 40).

Independently of the objection under Article 56 EPC, the Examining Division also held that the subject-matter of Claim 1 did not meet the requirement of Article 123(2) EPC, and that the subject-matter of
Claims 3 and 4 did not fulfil the requirements of Article 84 EPC.

Concerning the objection under Article 123(2) EPC, they considered that the definitions of $R_1$ in Claim 1:

"an amino group, which may be substituted by a $C_{1-6}$-alkyl group, a hydrogen atom bonded to a carbon atom thereof may be substituted by an amino group, a carboxy group or an ester group"

and

"an N-dimethylaminoethylamino group"

did not have a basis in the application as filed, since said first definition of $R_1$ represented a generalisation of specific residues, and because said second one represented an arbitrary selection of specific residues.

With respect to the objection under Article 84 EPC, they considered that the term "substituted" in the unlimited meanings of $R_1$ in Claims 3 and 4, namely:

"substituted amino group",

and

"substituted 6- or 7-membered heterocyclic group"

was not further specified or defined.

IV. The Appellant submitted on 19 December 1994, together with his statement of the grounds of appeal, a new set
of Claims 1 to 5 as main request, and another set of claims as auxiliary request.

The claims of his main request corresponded to those forming the basis for the decision of the Examining Division as indicated above, except that in Claim 1:

(i) the definition of the amino group for \( R_1 \) now reads as follows:

"an amino group, which may be substituted by a \( C_{1-6} \)-alkyl group, a hydrogen atom bonded to a carbon atom thereof may be substituted by an amino group, a carboxy group or an ester group",

and

(ii) regarding \( R_1 \) the meaning

"an N-dimethylaminoethylamino group"

was deleted;

and Claims 3 and 4 now read as follows:

"3. Pyridine derivatives and 1,2,3,4-tetrahydropyridine derivatives and salts thereof as claimed in claim 2, wherein \( R_1 \) is an amino group, a hydrogen atom bonded to the nitrogen atom of this group may be substituted, wherein the substituent is a \( C_{1-6} \)-alkyl group, a hydrogen atom bonded to a carbon atom thereof may be substituted by an amino group, a carboxy group or an ester group"

"4. Pyridine derivatives and 1,2,3,4-tetrahydropyridine derivatives and salts thereof as
claimed in claim 2, wherein \( R_1 \) is a 6- or 7-membered heterocyclic group having at least one nitrogen atom which may be substituted by a \( C_{1-6} \)-alkyl group, a phenyl group or a 5- to 7-membered heterocyclic group having an N-atom."

The Appellant argued with respect to his new main request that the subject-matter of Claim 1 met the requirements of Article 123(2) EPC. In this context, he contended in particular that the new definition of the amino group for \( R_1 \) almost literally corresponded to the disclosure of the application as filed.

Regarding inventive step, he submitted on 19 December 1994 a test-report in order to show that the claimed compounds had improved properties compared to the compounds of document (1) having the closest structural similarity.

V. The Appellant requested in his letter of 22 December 1999 that the decision under appeal be set aside and a patent be granted on the basis of the Claims 1 to 5 filed on 19 December 1994 as main request, or on the basis of the auxiliary request as filed on the same date, or to remit the case to the first instance.

He also requested oral proceedings if neither of these requests could be met.

Moreover, he withdrew his earlier request for reimbursement of the appeal fee.
Reasons for the Decision

1. The appeal is admissible.

Main request

2. Support of the claims under Article 123(2) EPC

2.1 The first issue to be dealt with is whether or not the subject-matter of the claims of this request meets the requirements of Article 123(2) EPC.

2.2 Article 123(2) EPC requires that a European patent application may not be amended in such a way that it contains subject-matter extending beyond the content of the application as filed. The idea underlying this provision is that an applicant should not be allowed to improve his position by adding subject-matter not disclosed in the application as filed giving him an unwarranted advantage and possibly being detrimental to the legal security of third parties relying on the contents of the application as filed (see G 0001/93, OJ EPO 1994, 541, no. 9 of the reasons for the decision).

2.3 The same principle governs also a situation where the amendment results in a limitation of the scope of the claims be it by the addition of a technical feature or by the deletion of originally disclosed meanings from the definitions of symbols of a generic chemical formula standing for a class of chemical compounds.

2.4 In this context, the Board observes that there are certainly cases in which a limitation of the scope of a claim may generate subject-matter not disclosed in or not derivable from the original application; but a
limitation of a claim will not necessarily result in novel subject-matter, i.e. different from that as originally disclosed. A limitation may indeed merely exclude protection for a part of the subject-matter disclosed and claimed in the application as filed without giving any unwarranted advantage to the applicant and without any adverse impact on legal security (see G 0001/93, OJ 1994, 541, no. 16 of the reasons for the decision).

2.5 With this in mind, the question to be answered in the present case is whether or not the subject-matter of the present Claim 1, which still relates to a broad group of compounds, is supported by the application as filed.

2.6 It follows from a comparison of the subject-matter of the originally filed Claim 1 with that of present Claim 1 that the subject-matter of present Claim 1 differs from that of the originally filed one in that:

(a) it also comprises the salts of the originally claimed compounds (see line 3),

(b) $R_1$ is restricted to the specified alkoxy groups, and extended by a benzyloxy group,

(c) $R_1$ is an amino group, which is limited by indicating that it may be substituted as specified in present Claim 1,

(d) $R_1$ is a 6- or 7-membered heterocyclic group having at least one N-atom, which is limited by indicating that it may be substituted as specified in present Claim 1, and
(e) regarding $R_2$ and $R_3$, the carbon containing groups are limited by indicating that they have 1 to 20 carbon atoms and may be substituted as specified in present Claim 1.

2.7 Concerning the salts of the claimed compounds, present Claim 1 is supported by page 1, line 3, of the application as filed,

The meaning of $R_1$ concerning to the specified alkoxy groups and the benzyloxy group is supported by page 5, lines 6 to 8, of the application as filed.

The meaning of $R_1$ regarding the limited amino group is based on page 4, last paragraph to page 5, line 6, of the application as filed. In this context, the Examining Division held (see point III above) that the defined amino group represented an unallowable generalisation of specific residues having no basis in the application as filed. However, this objection, which was not further substantiated, cannot be followed by the Board, since it can be clearly derived from the indicated part of the description that the hydrogen bonded to the amino group may be substituted by an alkyl group having 1 to 6 carbon atoms and that a hydrogen atom bonded to a carbon atom of said alkyl group may be substituted by an amino group, carboxy group or an ester group.

The meaning of $R_1$ concerning the limited 6- or 7-membered heterocyclic group having at least one N-atom is supported by page 4, last paragraph, to page 5, line 3, of the application as filed.

The meanings of $R_2$ and $R_3$ regarding the limited carbon
containing groups are supported by page 5, last paragraph, to page 6, line 3, of the application as filed.

Moreover, it prima facie follows from the description and the examples of the originally filed patent application that present Claim 1 includes all or substantially all the exemplified compounds (see in particular the examples 1 to 54 of the claimed compounds on pages 6 to 11 and Tables 17 and 18).

2.8 Under these circumstances, the Board concludes that a skilled person cannot derive any information from present Claim 1 which was not already present in the patent application as filed, and that consequently no new subject-matter has been generated by the amendments in question. Moreover, the Board observes that, in view of the fact that all or substantially all examples fall under the scope of present Claim 1, the claimed group of compounds cannot represent a so-called "new selection".

2.9 Furthermore, the Board has come to the conclusion that present Claims 2, 3, 4 and 5 are supported by the originally filed Claim 1, by the above indicated parts of the description of the application as filed regarding the group of compounds, in which \( R_1 \) relates to the limited amino group (present Claim 3) and the limited 6- or 7-membered heterocyclic group having at least one N-atom (present Claim 4), and by the numerous examples of the claimed compounds given in the application as filed in which \( n \) and \( m \) are both 0 (present Claim 5).

2.10 Thus, all the present claims meet the requirements of
Article 123(2) EPC.

3. **Support under Article 84 EPC**

3.1 With respect to the present claims, the Board has also no objections under Article 84 EPC.

In this context, the Board observes that the Examining Division held that Claims 3 and 4 then on file did not meet the requirements of Article 84 EPC, because said claims comprised the unlimitedly defined "substituted amino group" and "substituted 6- or 7-membered heterocyclic group" respectively. However, as indicated above, the subject-matter of said two Claims is now limited to the concretely specified groups of compounds, which are supported by the description of the application as filed. Therefore, the Examining Division's objection in this respect does not apply anymore.

4. **Remittal**

4.1 Although the Examining Division held that the claimed subject-matter of the application in suit lacked inventive step (see point III above), they did not consider the question of inventive step having regard to the test-report as submitted on 19 December 1994. Moreover, it appears to the Board that they did not examine the issue of inventive step with respect to the class of compounds having the general formulae (I) and (II) as claimed in the application in suit, in which A represents an oxygen atom instead of a sulphur atom.

4.2 In these circumstances, and in view of 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 intends to make use of its competence under Article 111(1) EPC and to remit the case to the first instance for further prosecution on the basis of the present claims. This will not preclude the Appellant to further amend these claims as may become necessary.

5. Auxiliary request

In the light of the above findings, it is not necessary to consider the Appellant's auxiliary request.

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.

The Registrar: The Chairman:

N. Maslin A. Nuss