BESCHWERDEKAMMERN DES EUROPÄISCHEN PATENTAMTS

BOARDS OF APPEAL OF THE EUROPEAN PATENT OFFICE

CHAMBRES DE RECOURS DE L'OFFICE EUROPEEN DES BREVETS

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 17 January 2006

Case Number: T 0384/03 - 3.3.02

Application Number: 96915885.6

Publication Number: 0833632

IPC: A61K 31/38

Language of the proceedings: EN

Title of invention:
Method to increase retinal blood flow

Applicant:
Advanced Research & Technology Institute

Opponent:
-

Headword:
Use of a carbonic anhydrase inhibitor/ADVANCED RESEARCH

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

Keyword:
"Main request: novelty (no): the use of the same compound for the manufacture of the same medicament for treating the same disease is known"
"First auxiliary request: the requirements of Article 123(2) not met: no disclosure concerning the treatment of glaucoma for such specific group of patients"
"Second auxiliary request: novelty (no): analogous reasons as for main request"

Decisions cited:
T 0290/86, T 0254/93, G 0004/92

Catchword:
-

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0384/03 - 3.3.02

D E C I S I O N
of the Technical Board of Appeal 3.3.02
of 17 January 2006

Appellant: Advanced Research & Technology Institute
501 North Morton Street
Bloomington
IN 47404 (US)

Representative: Gillard, Richard Edward
Elkington and Fife LLP
Prospect House
8 Pembroke Road
Sevenoaks
Kent TN13 1XR (GB)

Decision under appeal: **Decision of the Examining Division of the European Patent Office posted 20 December 2002 refusing European application No. 96915885.6 pursuant to Article 97(1) EPC.**

Composition of the Board:

Chairman: U. Oswald
Members: M. C. Ortega Plaza
J. Willems

Summary of Facts and Submissions

I. European patent application No. 96 915 885.6 based on international patent application WO 96/37203 was filed with 12 claims. The claims were worded as medical use claims. During the examining procedure (set of claims filed with the letter of 30 August 2001) the claims were amended to a set of claims relating to five use claims.

Claim 1 read as follows:

"Use of a carbonic anhydrase inhibitor in the manufacture of a medicament for topical application to the eye, said medicament being effective to improve the health of the optic nerve and retina by increasing retinal blood flow velocity and increasing optic nerve head blood flow velocity by providing sufficient blood flow in the eye to nurture tissue and assure nerve axon flow, with the proviso that the medicament is not used in the treatment of glaucoma."

II. The following documents were cited inter alia during the proceedings:

(1) US-A-4 797 413
(2) WO 94/15582
(3) GB-A-2 203 039
(5) Yoshiaki Kitazawa, Journal of Glaucoma, 1994, 3, pages 275-279
(6) J. Messerli, Schweiz. Med. Wochenschr., 1993, 123(16), pages 783-788
(7) G. C. Y. Chiou, Journal of Ocular Pharmacology, 1993, 9(1), pages 13-24

(8) S.M.B. Rassam, Eye, 1993, 7, pages 697-702

(9) M. C. Grieshaber, Current Opinion in Ophthalmology, 2005, 16, pages 79-83.

III. The appeal lies from a decision of the examining division refusing the patent application under Article 97(1) EPC.

IV. The examining division considered that the subject-matter claimed (set of claims filed with the letter of 30 August 2001) contravened the requirements of Article 123(2) EPC since it contained a disclaimer in order to excise the closest prior art.

The examining division also considered that claim 1 was worded as a second medical use claim but did not contain any clear definition of the diseases to be treated and hence the claim did not meet the requirements of Article 84 EPC.

Additionally, the examining division also considered that claim 1 lacked novelty in view of documents (1) to (5) and (7) to (8) (Article 54(1) and (2) EPC).

V. The appellant (applicant) lodged an appeal against said decision and supported it with arguments in its grounds of appeal. Moreover, it filed with its grounds of appeal a main set of claims and a (first) auxiliary request.

Claim 1 of the main request reads as follows:

"1. Use of a carbonic anhydrase inhibitor in the manufacture of a medicament for topical application to

the eye to increase retinal and optic nerve head blood velocity."

Claim 1 of the (first) auxiliary request reads as follows:

"1. Use of a carbonic anhydrase inhibitor in the manufacture of a medicament for topical application to the eye for the treatment of glaucoma in patients having an intraocular pressure (IOP) under 21 mm/Hg (2.80 KPa)."

VI. A communication from the board dated 8 April 2005 analysed the wording of claim 1 of the main request and raised an objection of lack of novelty vis-à-vis documents (1) to (5). In the said communication an objection within the meaning of Article 123(2) EPC was raised against claim 1 of the (first) auxiliary request.

VII. The appellant filed with its response of 15 June 2005 a set of claims as second auxiliary request. Document (9) was also filed.

Claim 1 of the second auxiliary request reads as follows:

"1. Use of a carbonic anhydrase inhibitor in the manufacture of a medicament for topical application to the eye for the treatment of the vascular component of glaucoma by increasing retinal and optic nerve head blood velocity."

VIII. A communication from the board was sent as an annex to the invitation to oral proceedings in which it was mentioned that it had to be discussed whether or not claim 1 of the second auxiliary request met the requirements of Article 123(2) EPC.

IX. With the letter of 26 October 2005 the appellant made it clear that it maintained its main request and its two auxiliary requests. It further communicated to the board that it had presented its case in full in writing and that it would not be attending the oral proceedings. The appellant requested from the board a decision "based on the file as it stands". It also filed three versions of pages of an adapted description corresponding to the three requests on file.

X. Oral proceedings were held in the absence of the appellant on 17 January 2005.

XI. The arguments submitted in writing by the appellant may be summarised as follows:

With respect to the wording of the first request the feature "to increase retinal and optic nerve head blood velocity" related to a functional feature defining a therapy since there was a vascular component of glaucoma which was distinct from increased IOP (intraocular pressure). In this context the appellant cited documents (7) and (8). In particular, it stated that document (7) taught that the measurement of ocular blood flow was an important parameter in the study of glaucoma and hence it indicated that its control would be an important factor in therapy. Document (7) disclosed that drugs for glaucoma treatment should be

developed both to lower IOP and to increase ocular blood flow, but that drugs for glaucoma treatment had traditionally been developed only to lower IOP.

The appellant stressed that document (7) clearly taught that there were distinct vascular and elevated IOP components to glaucoma. The appellant acknowledged that document (7) taught that acetazolamide (a carbonic anhydrase inhibitor or CAI) provided an effective treatment for such vascular disorders but its use was exclusively disclosed for systemic administration, which was limited.

The appellant also stated that document (8) disclosed the systemic administration of acetazolamide for increasing retinal blood flow, but that, in document (8), a cross reference to another document made it clear that the success of the use of the CAI depended on the administration mode.

The appellant stated that the documents (1) to (5) dealt with the administration of CAIs to treat glaucoma by reducing IOP and that there was no disclosure in these documents of increasing retinal and optic nerve head blood flow. In this context the appellant referred to decision T 290/86, OJ EPO 1992, 414 and put forward that the present case was an analogous situation since claim 1 of the main request, although relating to the treatment of glaucoma like documents (1) to (5), was directed to a new and distinct technical effect, namely to increase retinal and optic nerve head blood flow. This effect, in contrast to the case dealt with by decision T 254/93, OJ EPO 1998, 285 was not a mere explanation of the known use for lowering IOP.

With respect to the amendments introduced in claim 1 of the (first) auxiliary request, the appellant stated that claim 1 identified a patient group (namely those having an IOP under 21 mm/Hg) which was identified on page 1 of the international application. Although this passage of the description was referred to in the background to the invention, the same passage identified the importance of vascular effects, rather than IOP, in the treatment of glaucoma. The appellant submitted that the description linked vascular effects in glaucoma with the above identified patient group, since the summary of the invention at page 2 identified that CAIs had an effect on blood flow.

With respect to the second auxiliary request, the appellant cited as the basis therefor page 1, line 14, of the international application. The appellant stated that although this feature was disclosed in the background to the invention, it was clearly central to the present invention. The summary of the invention at page 2 and the example at the end of page 7 both referred to vascular effects associated with glaucoma.

XII. The appellant requested in writing that the decision under appeal be set aside and that a patent be granted on the basis of the main request filed with the grounds of appeal, or, alternatively, on the basis of the first auxiliary request, filed with the grounds of appeal, or, on the basis of the second auxiliary request, filed with the letter of 15 June 2005.

Reasons for the Decision

1. *Admissibility*

The appeal is admissible.

2. *Main request*

2.1 The appellant has acknowledged that the technical effect "to increase retinal and optic nerve head blood velocity" defined in claim 1 of the main request addresses the treatment of the glaucoma disease and that CAIs (carbonic anhydrase inhibitors) are already known for treating glaucoma from documents (1) to (5). Furthermore, the appellant has not disputed that documents (1) to (5) disclose compositions for topical administration to the eye (see, for example, document (1), column 1, line 29; document (2), page 5, line 13; document (3), claim 1; document (4), page 1344, "materials" and left column under the table; document (5), page 276, "Materials" and "Study design") and hence the feature appearing in present claim 1 which relates to the topical administration to the eye of the medicament containing a CAI cannot be a novelty bringing feature over the contents of documents (1) to (5).

Accordingly, claim 1 relates to the use of the same compound (a CAI) for the manufacture of the same medicament (a medicament for topical administration), for the same mode of administration (topical to the eye), for treating the same disease, namely glaucoma, as the cited prior art documents.

Therefore, claim 1 of the main request lacks novelty vis-à-vis documents (1) to (5).

2.2 The appellant's submissions concern the approach that the technical feature "to increase retinal and optic nerve head blood velocity" relates to a novel and distinct technical effect over the effect of lowering IOP (intraocular pressure), which is the sole effect disclosed in connection with the use of the CAIs in documents (1) to (5) for treating glaucoma.

The board agrees with the appellant in that document (7) shows that there is a vascular component to glaucoma which is distinct from the component elevated intraocular pressure. However, both effects - increase in ocular blood flow and lowering of intraocular pressure - will simultaneously intervene when the treatment of glaucoma patients with elevated IOP takes place by administering a CAI topically.

The appellant also cited the decision T 290/86 in which two different effects, both concerning preventive treatment of tooth decay, were considered to lead to different medical indications. However, the situation depicted in decision T 290/86 is not directly applicable to the present case insofar as the treatment of teeth (which equates to saying the patient having those teeth) requiring the removal of plaque, and the prevention of its further adhering, do not simultaneously and immediately require the depression of the solubility of the tooth enamel in organic acids. This second effect does not have an influence in the removal of dental plaque. Hence, the two technical effects shown in decision T 290/86 are distinct and

independent of each other, and this applies especially to the case of patients suffering from plaque deposit on their teeth.

However, the case of glaucoma patients with elevated IOP (i.e. traditional glaucoma patients) treated with antiglaucoma drugs having both an action on the elevated IOP and an effect on the ocular blood flow (OBF) requires both technical effects to act simultaneously in the appropriate direction (i.e. lowering of IOP and increase of OBF). If this does not happen the active drug is inadequate for the treatment of glaucoma, as shown by document (7) for the β_1-specific adrenergic blockers (abstract and first paragraph under the heading "Introduction" on page 13). Accordingly, both effects, although distinct, are not independent in the treatment of glaucoma.

2.3 Consequently, the main request fails for lack of novelty of claim 1.

3. *(First) auxiliary request*

3.1 Claim 1 of the (first) auxiliary request clearly relates to a claim in Swiss-type form relating to the medical indication "for the treatment of glaucoma" in which a specific subgroup of patients has been identified, namely "in patients having an intraocular pressure (IOP) under 21 mm/Hg (2.80 KPa)". None of these features appeared in the claims of the application as originally filed (WO 96/37203).

The board is convinced in the light of the evidence and arguments on file, especially in the light of document (9) (publication date 2005!), that the vascular component relating to OBF is essential in glaucoma patients having a normal or low IOP (so called normal or low tension glaucoma, i.e. NTG or LTG). However, the question to be answered is whether or not the subject-matter claimed in amended claim 1 of the (first) auxiliary request extends beyond the contents of the international application WO 96/37203, which corresponds to the application as filed.

As already expressed in the board's communication dated 8 April 2005, an inspection of the international application has shown no disclosure concerning the treatment of glaucoma for such specific group of patients, as that now defined in the claim, by topical administration of a CAI.

The description of the international application states:

"The claimed use of the compound to increase retinal and optic nerve head blood flow velocity has been the subject of a study to determine whether Trusopt drops compared to placebo drops had a significant effect on retinal and optic nerve head blood flow velocity in healthy subjects." (page 7, lines 18-22)

"Subjects treated with Trusopt drops exhibited an accelerated arteriovenous passage time as well as an increase in optic nerve head velocity." (page 7, 27-30)

Apart from the fact that it is not clearly and unambiguously disclosed on page 7 of the international application whether or not the treatment with CAI in "healthy subjects" has a preventive effect in the appearance of glaucoma, the subgroup of "healthy patients" has not been identified with respect to the specific values of IOP.

3.2 Therefore claim 1 of the (first) auxiliary request does not meet the requirements of Article 123(2) EPC.

3.3 With respect to the appellant's submissions that the subgroup of patients now mentioned in the claim was already identified on page 1, line 12 of the international application WO 96/37203, albeit as part of the reference to the background art, and that it was clearly linked in the description to the importance of vascular effects, rather than to elevated IOP, in the treatment of glaucoma (page 2 of the description), the following has been considered:

The actual passage under the heading "Background of the invention" states:

"However, there are many cases where glaucoma occurs with IOP under 21 mm/Mercury, therefore the level of IOP is not the major factor producing this disease. Recent evidence suggests that glaucoma may have a vascular component, possibly vasospastic, as well."

It is a fact that such a subgroup of patients was identified in the prior art to be different from the traditional glaucoma patients with elevated IOP. It is also evident that there was a theory being developed

about a vascular component of glaucoma, but still there is a lack of disclosure in the description of the international application WO 96/37203 concerning the topical administration of CAIs for treating or preventing glaucoma in such a group of patients. This and nothing else is the core of the invention as claimed in the amended claim 1 of the (first) auxiliary request and hence it cannot be concluded that the requirements of Article 123(2) EPC are met.

The passage on page 2 of the description (lines 26-28) of the international application merely refers to the effect of increase of "retinal and optic nerve head blood velocity by topical application of CAIs to the eye". There is no mention of any glaucoma patients.

4. *Second auxiliary request*

4.1 Claim 1 of the second auxiliary request is clearly directed to a medical indication in Swiss-type form where it is specified that the medicament is for "the treatment of the vascular component of glaucoma by increasing retinal and optic nerve head blood velocity."

4.2 Leaving aside whether or not the introduction of the specification "for the treatment of the vascular component of glaucoma" can be directly and unambiguously derived from the international application WO 96/37203 (which corresponds to the application as filed), it has to be stressed that the analysis made in respect of the novelty of the subject-matter claimed in the main request applies *mutatis mutandis* to this request. The reasons are that the

specification introduced does not make a difference to the given grounds since the glaucoma patients with elevated IOP also have a vascular component for their glaucoma and when treated by topical administration of the CAI both effects are simultaneously involved.

4.3 The appellant has not provided any arguments in respect of the novelty of this request.

4.4 Consequently, the second auxiliary request fails for lack of novelty vis-à-vis documents (1) to (5) (Article 54(1)(2) and (4) EPC).

5. With respect to the fact that a decision contrary to the appellant's interests is taken in its absence, it has to be said that the appellant chose not to attend oral proceedings to which it was duly summoned. Moreover, the main request and the (first) auxiliary request were extensively discussed in writing. With respect to the second auxiliary request the appellant decided, on the one hand, not to submit any specific arguments in favour of its novelty, and on the other, to state that it had already submitted in writing its arguments in full. Therefore, it has to be assumed that the arguments submitted for the main request should apply *mutatis mutandis* to this request. These arguments have been taken into consideration in the present decision.

In view of the above, the board is convinced that the principles laid down in decision G 04/92, OJ EPO 1994, 149 have been applied in the present case.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar: The Chairman:

A. Townend U. Oswald