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D E C I S I O N
of 22 June 2004

Case Number: T 0492/99 - 3.3.2

Application Number: 90123628.1

Publication Number: 0433817

IPC: A61K 31/725

Language of the proceedings: EN

Title of invention:
Combined anti-inflammatory agent

Patentee:
Nipro Corporation

Opponent:
SKYEPHARMA PLC

Headword:
Combined anti-inflammatory agent/NIPRO

Relevant legal provisions:
EPC Art. 52(4), 54, 56, 84, 123
EPC R. 57a

Keyword:
"Novelty (yes): anti-inflammatory composition comprising hyaluronic acid and either diclofenac or ibuprofen not disclosed in the prior art"
"Inventive step (no): replacement of indomethacin by diclofenac or ibuprofen, to obtain further anti-inflammatory composition, obvious"
"Use of the claimed composition for the treatment of arthropathy, belonging to the class of inflammatory diseases, obvious"

Decisions cited:
G 0009/92, G 0004/93, G 0001/99, G 0005/83

Catchword:

Europäisches Patentamt | European Patent Office | Office européen des brevets

Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0492/99 - 3.3.2

D E C I S I O N
of the Technical Board of Appeal 3.3.2
of 22 June 2004

Appellant: (Opponent)
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Decision under appeal:
Interlocutory decision of the Opposition Division of the European Patent Office posted 3 November 1998 concerning maintenance of European patent No. 0433817 in amended form.

Composition of the Board:

Chairman: G. F. E. Rampold
Members: H. Kellner
C. Rennie-Smith

Summary of Facts and Submissions

I. This appeal lies against an interlocutory decision of the opposition division maintaining European patent No. 433 817 ("the patent") in amended form under Articles 102(3) and 106(3) EPC. The patent was granted to the proprietor (respondent) pursuant to European patent application No. 90 123 628.1, filed on 8 December 1990 claiming priority of 21 December 1989 from JP 334571/89.

Claim 1 as granted for the contracting states DE, FR, GB, IT and SE read as follows:

"A pharmaceutical composition for treating inflammatory diseases, comprising (A) an effective amount of hyaluronic acid or its salt, and (B) an effective amount of a nonsteroidal anti-inflammatory agent other than hyaluronic acid or its salt."

Claim 1 as granted for the contracting state ES read:

"A process for preparing a pharmaceutical composition for treating inflammatory diseases comprising (A) an effective amount of hyaluronic acid or its salt, and (B) an effective amount of a nonsteroidal anti-inflammatory agent other than hyaluronic acid or its salt, which comprises mixing an effective amount of hyaluronic acid or its salt and (B) an effective amount of a nonsteroidal anti-inflammatory agent other than hyaluronic acid or its salt."

II. Opposition was filed against the granted patent under Article 100(a) EPC for lack of novelty and inventive step.

The following documents were cited inter alia during the proceedings before the opposition division and the board of appeal:

(1) EP-A-0 197 718

(11) D.A. Kalbhen, "The inhibitory effects of steroidal and non-steroidal antirheumatic drugs on articular cartilage in osteoarthrosis and its counteraction by a biological GAG-peptide complex (Rumalon®)", Z. Rheumatol. (41), 1982, 202-211

(12) M. Katsu, T. Abe, S. Shimada, "Significance and clinical use of non-steroid anti-inflammatory drugs as substitutes for steroids in steroid dependence", Nippon Rinsho 26(1), 1968, 89-95 (english translation of japanese article)

(21) C.W. McIlwraith, "Current concepts in equine degenerative joint disease", J. Am. Vet. Med. Assoc. 180, 1982, 239-250

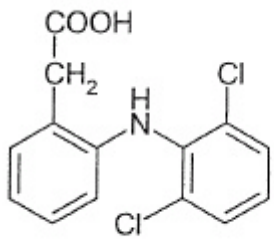
(22) K. Sugibayashi, M. Nemoto, Y. Morimoto, "Effect of several penetration enhancers on the percutaneous absorption of indomethacin in hairless rats", Chem. Pharm. Bull. 36(4), 1988, 1519-1528

III. The opposition division found that the claims in the proprietor's auxiliary request before it, called in the decision under appeal "amended auxiliary request", and

the consequentially amended description were admissible under Rules 71a and 57a EPC.

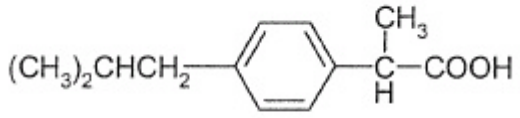
This request consisted of a set of five claims. The independent claims 1 and 4 for the contracting states DE, FR, GB, IT and SE were worded as follows:

"1. The use of (A) an effective amount of hyaluronic acid or its salt and (B) an effective amount of a nonsteroidal anti-inflammatory agent in a quantity producing a synergistic effect, the anti-inflammatory agent being a compound having the formula (I):



(I)

or a salt thereof, or a compound having formula (II):

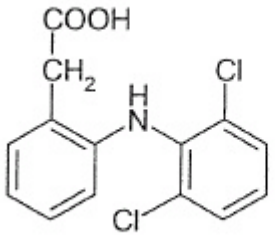


(II)

or a salt thereof, for the preparation of a medicament for the treatment of arthropathy.

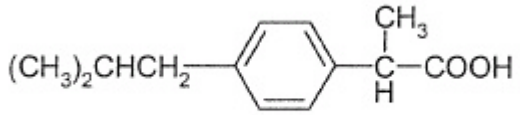
4. A pharmaceutical composition for treating inflammatory diseases, comprising (A) an effective amount of hyaluronic acid or its salts, and (B) an effective amount of a nonsteroidal anti-inflammatory agent in a quantity producing a synergistic effect, the

anti-inflammatory agent being a compound having formula (I):



(I)

or a salt thereof, or a compound having the formula (II):



(II)

or a salt thereof."

The opposition division found that the amended patent documents complied with the formal requirements of Articles 84 and 123(2) and (3) EPC.

It considered that the claims in the amended auxiliary request met the requirement of novelty since, in its opinion, none of the documents cited by the opponent disclosed synergistic combinations comprising (A) hyaluronic acid and (B) either the compound having formula (I), diclofenac, or the compound having formula (II), ibuprofen, as the nonsteroidal anti-inflammatory agent (NSAID), for use in the treatment of arthropathy.

As regards inventive step, the opposition division considered citation (21) to represent the closest state of the art. It concluded that the contested patent was concerned with the problem of "improving the combination therapy of NSAID and hyaluronic acid disclosed in D21". The decision under appeal states that this problem was solved "by selecting diclophenac and ibuprofen as the NSAID and proving a synergistic effect of these combinations". The opposition division found that "this synergistic effect could not be deduced from the prior art" and thus considered the requirement of inventive step to be met.

IV. The appellant (opponent) lodged an appeal against this decision on 24 December 1998, paying the appeal fee and submitting a statement of grounds in due time. The respondent (patent proprietor) filed arguments supporting its request for the appeal to be dismissed in a letter of 28 September 1999.

V. In its submission of 19 December 2003, the respondent filed a new main request and auxiliary requests 1 to 4. In its reply of 5 April 2004 the appellant raised, inter alia, the argument that all those requests offended against Rule 57a EPC in view of the addition of one or more independent claims or the introduction of new dependent claims.

VI. The board, in a communication dated 11 June 2004, expressed its provisional view that, if the claims of the respondent's requests of 19 December 2003 were broader in scope than the claims allowed by the opposition division in the decision under appeal, they might offend against the principle of no reformatio in

peius. It informed the parties that compliance of those requests with the requirements of Rule 57a EPC and the principle of no reformatio in peius would have to be discussed at the oral proceedings before the board appointed for 22 June 2004.

VII. In reply to the communication of the board and in preparation for oral proceedings, the respondent on 15 June 2004 filed a new main request and auxiliary requests 1 to 9.

VIII. On 22 June 2004, oral proceedings took place before the board in the presence of the representatives of both parties.

At the oral proceedings the respondent maintained the main request and auxiliary requests 1, 5, 6 and 8 of the requests it had submitted with its letter of 15 June 2004 and filed during the proceedings a new set of claims as its auxiliary request 2. Each request included two sets of claims, one for the contracting states DE, FR, GB, IT and SE and one for ES. The claims for ES were drafted in the form of process claims and amended in accordance with the claims for the other contracting states. In the following, reference is made to the claim(s) for the contracting states DE, FR, GB, IT and SE only and the everyday names diclofenac and ibuprofen are used for the compounds of formula (I) or (II) (the chemical formulae themselves being set out at point III of this decision).

(a) The single claim of the main request reads as follows:

"A pharmaceutical composition for treating inflammatory diseases, comprising (A) an effective amount of hyaluronic acid or its salts, and (B) an effective amount of a nonsteroidal anti-inflammatory agent, the anti-inflammatory agent being a compound having the formula (I):

diclofenac

or a salt thereof, or a compound having formula (II):

ibuprofen

or a salt thereof, wherein the ratio of (A) and (B) ranges from 1 :0.03 to 2 (by weight)."

(b) The single claim of auxiliary request 1 differs from that claim in that there is additionally inserted

"in a quantity producing a synergistic effect"

between the wording "nonsteroidal anti-inflammatory agent" and ", the anti-inflammatory agent being".

(c) The single claim of auxiliary request 2 corresponds to the claim of the above main request, with the sole exception that the indication of the therapeutic use "for treating inflammatory diseases" has been replaced by "for treating arthropathy".

(d) Claim 1 of auxiliary request 5 reads:

"The use of (A) an effective amount of hyaluronic acid or its salt and (B) an effective amount of a nonsteroidal anti-inflammatory agent, the anti-inflammatory agent being a compound having the formula (I):

diclofenac

or a salt thereof, or a compound having formula (II):

ibuprofen

or a salt thereof, wherein the ratio of (A) and (B) ranges from 1 : 0.03 to 2 (by weight), for the preparation of a medicament for the treatment of arthropathy."

(e) In the same way as the claims of the main request and auxiliary request 1 differ, claim 1 of the auxiliary request 5 differs from claim 1 of auxiliary request 6 in that there is additionally inserted

"in a quantity producing a synergistic effect"

between the wording "nonsteroidal anti-inflammatory agent" and ", the anti-inflammatory agent being".

(f) Claim 1 of auxiliary request 8 differs from that of auxiliary request 5 by the additional insertion of a molecular weight range, and thus this claim reads as follows (additional text in bold letters):

"The use of (A) an effective amount of hyaluronic acid or its salt and (B) an effective amount of a nonsteroidal anti-inflammatory agent, the anti-inflammatory agent being a compound having the formula (I):

diclofenac

or a salt thereof, or a compound having formula (II):

ibuprofen

or a salt thereof, wherein the ratio of (A) and (B) ranges from 1 : 0.03 to 2 (by weight), **and wherein the component (A) has a molecular weight of 4 x 10^5 to 3 x 10^6,** for the preparation of a medicament for the treatment of arthropathy."

IX. The appellant submitted that the amended claims of the auxiliary requests 1, 2, 5, 6 and 8 did not comply with Articles 123 or 84 EPC. The claimed subject-matter was respectively either not disclosed in the application as filed or unclear, because the wording "synergistic effect" was not disclosed literally in context with "quantity" and because "arthropathy" was not defined clearly enough as a single disease to allow a "second medical use format" for the claims. For that last

reason, auxiliary request 5 should not be admitted in the proceedings.

With respect to Article 54 EPC, the objections of lack of novelty raised in the written proceedings were no longer maintained.

But, in the opinion of the appellant, a synergistic effect was not achieved over the whole range of the claimed ratio of hyaluronic acid to anti-inflammatory agent, because (except in auxiliary request 8) there was no definition of the molecular weight of the hyaluronic acid and because there was no specific disease claimed to be cured by the combined agent. Moreover, in view of several documents, especially (1) or (21), the person skilled in the art would have found it obvious to try the subject-matter of all the requests. For these reasons an inventive step was lacking.

X. The respondent stated first that the sets of claims forming its current requests met the requirements of Article 123(2) and (3) EPC as well as Article 84 EPC.

The term "quantity producing a synergistic effect" was disclosed with regard to the whole contents of the application as filed.

Use of a "second medical use format" in the formulation of the claims of the auxiliary requests 5, 6 and 8 only required the claim to a use for a therapeutic application and not for a single disease.

Second, in the respondent's view, the claimed subject-matter was not only new but also inventive, especially in view of document (21) as the closest state of the art, since there was no real disclosure or suggestion contained in the state of the art referring to a synergistic effect resulting from combining the agents as specified in the present sets of claims. It pointed out that the teaching of documents (22), (21) and (12) would lead the person skilled in the art in any direction but that of the subject-matter claimed.

XI. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent No. 0 433 817 be revoked.

XII. The respondent (patentee) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or one of the first, fifth, sixth or eighth auxiliary requests all filed on 15 June 2004 or the second auxiliary request filed during the oral proceedings, in their numerical order.

Reasons for the decision

1. The appeal is admissible.

2. *Admissibility of the respondent's requests*

Although the respondent's current requests were filed late in the appeal proceedings - partly by a faxed letter on 15 June 2004, one week before the oral proceedings, partly by first presentation during the

hearing (see point VIII above) - the board considers that they should be admitted into the proceedings.

The respondent submitted that the current requests were primarily a response to the board's observations in its communication of 11 June 2004 regarding possible objections to the admissibility of all previously filed requests in the light of the provisions of Rule 57a EPC and the principle of "no reformatio in peius". These assertions appear prima facie correct.

Coupled with the facts that the amendments effected to the claims of all requests maintained by the respondent in the course of the proceedings before the board have been introduced for the purpose of restricting the scope of the claims and that those amendments concerned features which were easily understandable in themselves, the board considers it justified in the present case to exercise its discretion in favour of the respondent.

The amendments to the claims in the respondent's present requests can fairly be said to be occasioned by grounds for opposition specified in Article 100(a) EPC and to constitute a bona fide attempt on the part of the respondent to overcome the appellant's objections of lack of novelty and inventive step, raised in the opposition and appeal statements. The proposed amendments to the granted patent are thus also admissible under the terms of Rule 57a EPC. Moreover, the proposed amendments do not contravene the principle of "prohibition of reformatio in peius" set out in G 9/92 and G 4/93 (OJ EPO 1995, 875) and G 1/99 (OJ EPO 2001, 381).

Finally there is no objection to admit the auxiliary requests 5, 6 and 8 because of applying the "second (further) medical use format", as will be reasoned under point 3.3 of this decision.

3. *All sets of claims maintained in the oral proceedings; Articles 123(2)/123(3), 83, 52(4) and 84 EPC:*

3.1 *Article 123(2) and 123(3) EPC*

In the board's judgment, all the features of the claims of the respondent's current requests before the board can be found in the application for the patent as filed (see for the claim of the current main request claims 1 and 3, page 3, lines 7 to 11; page 5, lines 14 to 15; page 6, line 38 to page 7, line 4 and examples 1 to 3 and for the additional features in the corresponding claims 1 of the auxiliary requests page 3, line 31 and page 8, lines 6 to 13). As concerns especially the anti-inflammatory agents diclofenac and ibuprofen or their salts, they are individually and specifically disclosed on pages 7, line 32; 9, line 36; 13, line 6; 15, line 6; 18, table 6; 19, line 21; 21, line 31 (diclofenac) and pages 4, line 31; 7, line 32; 9, line 36 and 18, table 6 (ibuprofen).

The wording "a quantity producing a synergistic effect" may be deduced from the text of the application as filed, since all quantities of active compounds, ie as given in the examples, must refer to the claimed achievement of a synergistic effect by themselves.

Moreover, the scope of the claims has not been extended by the amendments made to the claims as granted. The change of category of the independent claims from product claims to use claims, ie from claims directed to a pharmaceutical composition per se to claims directed to the use of that composition in the form typically intended to claim a second medical indication, represents a major limitation of the scope and is not per se contrary to Article 123 EPC.

Accordingly the claims now under consideration meet the requirements of Article 123(2) and (3) EPC.

3.2 Article 83 EPC

The board is also of the opinion that the amendments do not give rise to any objections under Article 83 EPC. Since this has not been contested, there is no need to consider this matter further.

3.3 Articles 52(4) and 84 EPC

The claims in the auxiliary requests 5, 6 and 8 are all drawn up in the conventional "second (further) medical use format". As generally understood, the concept of "therapy" or "therapeutic application" includes treatment of a particular illness or disease with a specified chemical substance or composition in a specified human or animal subject in need of such treatment. The condition "arthropathies" is explained in the patent in suit (see page 5, lines 48 to 49) to include "a variety of arthropathies such as osteoarthritis, rheumatoid arthritis and periarthritis".

The feature "for the treatment of arthropathy" used in the above mentioned requests to define the claimed therapeutic application would thus be considered by those skilled in the art as clearly specifying a particular method of treatment or a therapeutic application within the meaning of Article 52(4) EPC. In accordance with the principles set out in decision G 5/83 (OJ 1985, 64; see especially reasons, end of point 21) and the substantial body of case law which has been developed by the boards of appeal in this respect (see eg "Case Law of the Boards of Appeal of the European Patent Office", 4th edition, 2001, I. C. 5.2, pp 88 to 94), the concept of "second (further) medical use" can only be applied to claims to the use of substances or compositions for the preparation of a medicament intended for use in a method referred to in Article 52(4) EPC. The board is therefore of the opinion that the feature "for the treatment of arthropathy" satisfies the specific requirements for "second (further) medical use" type claims laid down in the above-mentioned decision of the Enlarged Board of Appeal.

4. *All sets of claims maintained in the oral proceedings; Article 54 EPC:*

The Board is satisfied that the subject-matter of all requests is novel, because combinations of (A) hyaluronic acid or its salt(s) with (B) one of the nonsteroidal anti-inflammatory agents diclofenac or ibuprofen or their salts are not disclosed in the available state of the art. Since during the oral proceedings novelty was no longer in issue, no further reasons need to be given.

5. *Article 56 EPC; problem and solution approach; inventive step*

5.1 Main request

5.1.1 The amended patent in suit concerns a "Combined anti-inflammatory agent" comprising hyaluronic acid or its salts and an anti-inflammatory agent being diclofenac or ibuprofen or their salts.

Document (1) represents the closest state of the art.

The subject-matter of this prior art is "in its essential aspect related to the use of hyaluronic acid as a vehicle in association with a pharmaceutical substance to provide an improved drug delivery system" wherein the pharmaceutical substance inter alia should be used as an anti-inflammatory agent (see page 5, lines 9 to 12; page 6, lines 8 to 13 in combination with page 5, last paragraph to page 6, line 1).

For "a particular aspect of the present invention", namely ophthalmic use (see page 6, lines 5 to 8 of (1)), once again the anti-inflammatory effects of the pharmaceutical substance are indicated (page 6, lines 13 to 15), and for instance steroidal anti-inflammatory agents or nonsteroidal anti-inflammatory agents like indomethacin, oxyphenbutazone or flurbiprofen are suggested (see page 7, last paragraph and page 8, lines 6 to 11). It would have been within the common general knowledge of a skilled person that these examples of anti-inflammatory agents are valid not only for ophthalmic use but also for curing any

diseases with inflammatory conditions in general, as indicated on page 6 of (1), lines 8 to 13.

Consequently document (1) discloses a

pharmaceutical composition for treating inflammatory diseases, comprising (A) an effective amount of hyaluronic acid or its salts, and (B) an effective amount of a nonsteroidal anti-inflammatory agent, the anti-inflammatory agent being for instance

indomethacin

wherein the ratio of (A) and (B) in its especially preferred embodiment ranges from 1 : 0.1 to 2 by weight (see page 17, last paragraph to page 18, line 3).

5.1.2 In the light of this disclosure, the technical problem underlying the patent in suit can only be seen in the provision of another pharmaceutical composition containing hyaluronic acid and a nonsteroidal anti-inflammatory agent for the purpose of treating or preventing various inflammatory diseases.

The solution to this problem is the provision of a pharmaceutical composition wherein indomethacin is replaced by diclofenac or ibuprofen.

On the basis of the tabulated test results in the patent in suit and in the absence of any evidence to the contrary, the board is satisfied that the problem posed has successfully been solved.

5.1.3 The skilled practitioner seeking a solution to the problem posed in the prior art was aware of the fact that both diclofenac and ibuprofen belong to the most widely used and most potent nonsteroidal anti-inflammatory agents available in medicine. The substitution of diclofenac or ibuprofen for indomethacin in the combined anti-inflammatory agents disclosed in (1) therefore presented itself as a solution to the problem underlying the patent in suit.

5.1.4 Additionally, no special effect of the pharmaceutical compositions of claim 1 of the main request over the properties of pharmaceutical compositions of the state of the art is shown.

On the contrary, the experiments in the application as filed show in table 2 that hyaluronic acid applied together with indomethacin exhibits a even higher inhibitory activity as the same dose of hyaluronic acid together with diclofenac sodium or ibuprofen; the combined activity in all cases being classified as a "very large synergistic effect" ("inhibitory rate" of 66.2% for indomethacin/hyaluronic acid versus 47.6% for ibuprofen/hyaluronic acid or 62.9% for diclofenac sodium/hyaluronic acid).

Essentially the same holds for the results shown by table 7. The inhibitory rate of the combination indomethacin/hyaluronic acid is still higher than the rate of diclofenac/hyaluronic acid (52.0% versus 46.3%); both combinations again being equally classified as showing a "very great synergistic effect".

Thus there is no advantage of the combined anti-inflammatory agent claimed in the main request over the state of the art that could serve to define a special problem that would have been solved by inventive activity.

Accordingly, the board can only conclude that the subject-matter of the claim of the main request does not involve an inventive step.

5.2 Auxiliary request 1

The definition in the single claim of auxiliary request 1, that the active components should be present

"in a quantity producing a synergistic effect",

represents the single difference with respect to the wording of the main request, but it does not change its subject-matter.

On page 5 of the description of the patent in suit (lines 38 and 39 of the patent specification), it is declared, that "for the purpose of obtaining a good synergistic effect, the ratio of hyaluronic acid or its salt to the anti-inflammatory agent ranges preferably from 1 : 0.03 to 2 (by weight)". This range is already contained in the claim of the main request. Hence by this definition alone the subject-matter of the main request is restricted to compositions exhibiting a "good synergistic effect". Adding the feature "in a quantity producing a synergistic effect" therefore adds nothing by way of further restriction and consequently, with respect to the question of lack of inventive step,

the same arguments apply as to the subject-matter of the main request.

The subject-matter of auxiliary request 1 does - for the same reasons as given for the main request - not comply with the requirements of Article 56 EPC.

5.3 Auxiliary request 2

Claim 1 of auxiliary request 2 differs from claim 1 of the main request in that the claimed composition, which is said in claim 1 of the main request to be useful for treating inflammatory diseases in general, is suggested in auxiliary request 2 specifically for or use in the treatment of arthropathy which includes a number of conventional inflammatory diseases such as, for example, osteoarthritis, rheumatoid arthritis and periarthritis (see patent, page 5, lines 48 to 49.)

Once it became obvious from the cited state of the art that the claimed compositions are useful in the treatment of inflammatory diseases, the skilled person would have thought - as a first option - of using such combinations in the treatment of specific fields of inflammatory diseases, as, for example, conditions associated with arthropathy such as osteoarthritis, rheumatoid arthritis and periarthritis. Tests for determining the activity of the claimed anti-inflammatory compositions in the treatment of arthropathy and determination of the best treatment schedule required for this would then be purely a matter of routine experimentation for those skilled in the art.

In the absence of any unexpected effects associated with the suggested use of the claimed compositions in the treatment of arthropathies, the features of auxiliary request 2 cannot contribute to an inventive step.

5.4 Auxiliary request 5

5.4.1 In the light of the prior art according to citation (1), the problem underlying the subject-matter claimed in auxiliary request 5 is to find a further medical use of compositions comprising (A) an effective amount of hyaluronic acid and (B) an effective amount of a nonsteroidal anti-inflammatory agent. The problem is solved by the proposed use of the compositions comprising hyaluronic acid and one of the nonsteroidal anti-inflammatory agents diclofenac or ibuprofen stated in claim 1, namely in the treatment of arthropathy.

5.4.2 As has already been mentioned under point 5.3 above, arthropathy as a specific form of an inflammatory disease includes a number of conventional inflammatory diseases such as, for example, osteoarthritis, rheumatoid arthritis and periarthritis (see patent, page 5, lines 48 to 49). In the light of the above-mentioned teaching in the state of the art according to (1), coupled with the fact that hyaluronic acid as such has already explicitly been suggested for the treatment of arthropathies (see (1), page 10, lines 6 to 9 from the bottom), the skilled person had, in the board's judgment, every reason to expect that the claimed compositions would be useful in the treatment of arthropathies.

In the board's view, the cited state of the art according to (1) contains a clear suggestion to use the claimed pharmaceutical compositions for the treatment of arthropathies. In the present situation, the prior art pointed the notional skilled person in the direction of the claimed use, and it only remained to confirm experimentally by a small number of routine tests that the thoroughly obvious result, namely that the claimed compositions exhibit beneficial properties in the treatment of arthropathy, was in fact obtained. However, the necessity of experimentally confirming a reasonably expected result does not make the claimed subject-matter inventive.

5.4.3 It follows from the foregoing that, in the absence of any unexpected effects associated with the use of the claimed compositions in the treatment of arthropathy, the subject-matter of claim 1 of auxiliary request 5 does not involve an inventive step, contrary to the requirements of Article 52(1) in conjunction with Article 56 EPC.

5.5 Auxiliary request 6

The subject-matter of auxiliary request 6 relates to a combination of the features of auxiliary request 1 and the wording of auxiliary request 5 (second medical use format).

The reasons given in points 5.2 and 5.4 above are applicable and lead to the conclusion that the subject-matter of auxiliary request 6 also does not meet the requirements of Article 56 EPC.

5.6 Auxiliary request 8

The only additional feature of the subject-matter of auxiliary request 8 over the subject-matter of auxiliary request 5 is the provision that the hyaluronic acid used for the preparation of a medicament has to have a molecular weight of 4×10^5 to 3×10^6.

From the teaching of (1), the molecular weight of the hyaluronic acid should most preferably range alternatively from 0.5×10^5 to 1×10^5 or from 5×10^5 to 7.3×10^5 (see page 12, last line to page 13, line 2). The latter range, being a simple choice of one of two possibilities, lies squarely in the range taught by auxiliary request 8.

Thus all features of the subject-matter of claim 1 of auxiliary request 8 are obviously to be deduced from the teaching of (1) and hence lack an inventive step over this prior art.

5.7 In these circumstances the arguments of the respondent cannot hold:

The respondent submitted that (1) would basically and "above all" refer to "the corticosteroids" with respect to "the anti-inflammatory agents" (page 9, lines 8 and 9). This would prevent the person skilled in the art from using nonsteroidal anti-inflammatory agents when applying the teaching of document (1). But this only holds true for those cases where "the active component (1) may take the form of a mixture to two or more active substances" (see page 8, last paragraph, lines 1

to 2). However in the case, given with the patent in suit, where the subject-matter is a composition of hyaluronic acid or its salt with one single active component, namely either diclofenac or ibuprofen, corticosteroids are not preferred over nonsteroidal anti-inflammatory agents in the teaching of document (1). Thus this argument of the respondent with respect to document (1) cannot change the reasons and conclusions of the board under points 5.1 to 5.6 above.

The respondent referred particularly to documents (22), (12) and (11). However, the board cannot arrive at any other conclusion even taking account of this documents.

In the abstract of (22) on page 1519, lines 5 to 9, it is pointed out that sodium hyaluronate did not enhance the skin permeation of indomethacin. This seems to be a hint not to use these two substances or another nonsteroidal anti-inflammatory agent and hyaluronate together. But neither the subject-matter claimed, nor the overall teaching of (1), are restricted to such a percutaneous manner of administering the pharmaceutical composition or the prepared medicament. Thus no such prejudice as alleged exists with respect to document (1).

In (12), in the paragraph bridging pages 14 and 15, there is the teaching that not all patients exhibit the same reaction to a medicament, nonsteroidal anti-inflammatory agents being the example. But this does not mean that it is extremely difficult to find an appropriate and efficacious agent for any anti-inflammatory medicament. It only shows that normally it

is the doctor's choice to find the right medicament for his individual patient.

Finally the statement in (11), that steroidal as well as nonsteroidal anti-inflammatory agents may cause degenerative alterations to articular cartilage (see page 206, paragraph bridging the left and right columns) does not lead to the conclusion to avoid any of them in treating arthropathy. On the contrary, the teaching of (11) is to use such agents - and even the use of ibuprofen as now claimed is mentioned there (see page 203, table 3). The only additional condition is that a GAG-derivative (glycosaminoglycan-peptide; see page 207, left column, lines 1 to 2) should be administered simultaneously as a "cartilage protection therapy" (see page 209, "conclusion", line 8 to page 210, line 2). Hyaluronic acid is, as the skilled person knows, itself a glycosaminoglycan, meaning that (11) even gives a hint that ibuprofen could be used together with hyaluronic acid in treatment of osteoarthrosis, which is a form of arthropathy.

5.8 Accordingly, the board can only conclude that the subject-matter of all the requests does not involve an inventive step.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

A. Townend G. Rampold