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Datasheet for the decision of 21 May 2015

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Language of the proceedings: EN

Title of invention:
FREEZE-DRIED PANTOPRAZOLE PREPARATION AND PANTOPRAZOLE INJECTION

Patent Proprietor:
Takeda GmbH

Opponents:
Tecnimede, S.A.
Neogen N.V.
TEVA PHARMACEUTICAL INDUSTRIES, LTD.
Sandoz GmbH

Relevant legal provisions:
EPC Art. 56
RPBA Art. 12(4), 13

Keyword:
Late-filed evidence
Inventive step -
effect not made credible within the whole scope of claim

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European Patent Office
D-80298 MUNICH
GERMANY
Tel. +49 (0) 89 2399-0
Fax +49 (0) 89 2399-4465

Case Number: T 0644/11 - 3.3.07

D E C I S I O N
of Technical Board of Appeal 3.3.07
of 21 May 2015

Appellant: (Opponent 1)	Tecnimede, S.A. Rua Professor Henrique de Barros Edificio Sagres, 3o/A 2885-338 Prior Velho (PT)
Representative:	Vossius & Partner Patentanwälte Rechtsanwälte mbB Siebertstrasse 3 81675 München (DE)
Appellant: (Opponent 4)	Sandoz GmbH Biochemiestrasse 10 6250 Kundl (AT)
Representative:	Weiss, Wolfgang Weickmann & Weickmann Patentanwälte Postfach 86 08 20 81635 München (DE)
Respondent: (Patent Proprietor)	Takeda GmbH Byk-Gulden-Strasse 2 78467 Konstanz (DE)
Representative:	Hoffmann Eitle Patent- und Rechtsanwälte PartmbB Arabellastraße 30 81925 München (DE)
Party as of right: (Opponent 2)	Neogen N.V. Lambroekstraat 5a 1831 Diegem (BE)
Representative:	Brants, Johan P.E. Brantsandpatents bvba Pauline Van Pottelsberghelaan 24 9051 Ghent (BE)

Party as of right:
(Opponent 3)

TEVA PHARMACEUTICAL INDUSTRIES, LTD.
5 Basel Street,
P.O. Box 3190
49131 Petach-Tikva (IL)

Representative:

Gallagher, Kirk James
D Young & Co LLP
120 Holborn
London EC1N 2DY (GB)

Decision under appeal:

Interlocutory decision of the Opposition Division of the European Patent Office posted on 27 December 2010 concerning maintenance of the European Patent No. 1339430 in amended form.

Composition of the Board:

Chairman J. Riolo
Members: D. Semino
P. Schmitz

Summary of Facts and Submissions

I. The appeals of opponent 1 and opponent 4 (appellants) lie from the interlocutory decision of the opposition division announced at oral proceedings on 16 November 2010 concerning maintenance of European patent EP 1 339 430 in amended form.

II. The granted patent comprised 21 claims, independent claim 1 reading as follows:

"1. Process for the production of a freeze-dried preparation comprising 5-difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl)methylsulfinyl)-1H-benzimidazole (pantoprazole), a salt thereof, a solvate of pantoprazole or a salt thereof, comprising freeze-drying of an aqueous solution consisting of pantoprazole, a salt thereof, a solvate of pantoprazole or a salt thereof, ethylenediamine tetraacetic acid and/or a suitable salt thereof, and sodium hydroxide and/or sodium carbonate."

III. Four notices of opposition were filed in which revocation of the patent in its entirety was requested.

IV. During opposition proceedings, the following documents *inter alia* were cited:

E3: CN-A-1 235 018 (English translation)
E19: Arzneimittel-Kompendium der Schweiz® 2000, Documed AG, Basel, 1999, pages 143-144
E20: Austria-Codex Fachinformation 2000/2001, Österreische Apotheker-Verlagsgesellschaft m.b.H. Wien, 2000, page 2638 and LOSEC 40 mg (from CD-ROM)
E23: Declaration of Dr. Christian Welz of 25 September 2008

E25: US Pharmacopeia 24, "Physical Tests / <788>", 2000, pages 1971-1977
E29: Annex A filed by the proprietor with letter of 16 September 2010
E30: Annex B filed by the proprietor with letter of 16 September 2010

V. The decision was based on the set of claims filed with the letter of 30 September 2009 as main request.

The independent claims of that request were identical to those of the claims as granted, the difference between the respective claim sets lying solely in two dependent claims.

VI. The decision of the opposition division, as far as relevant to the present decision, can be summarised as follows:

a) The process of claim 1 of the main request differed from the disclosure of E3, which was the closest prior art, in that the step of freeze-drying was carried out on an aqueous solution consisting of pantoprazole, a salt thereof, a solvate of pantoprazole or a salt thereof, ethylenediamine tetraacetic acid (EDTA) and/or a suitable salt thereof and sodium hydroxide and/or sodium carbonate, whereas, according to E3, freeze drying was performed in the presence of a "supporting agent". Furthermore EDTA, sodium hydroxide and sodium carbonate were mentioned in E3 only in relatively long lists. The test reports E29 and E30 provided evidence of a decrease in the number of subvisible particles both for a lyophilisate containing EDTA disodium salt, sodium hydroxide and/or disodium carbonate as well as for

the composition of example 1 of the patent compared to that of example 1 of E3. In view of this, the problem solved was the provision of a pantoprazole lyophilisate exhibiting a reduced number of subvisible particles after reconstitution with a solvent. While it was possible to select EDTA or a salt thereof and sodium hydroxide and/or sodium carbonate from the lists provided in E3, there was no teaching in E3 which would point the skilled person towards making such a selection in order to solve the problem posed.

b) None of the alternative closest prior art documents proposed by the opponents led to a different conclusion with respect to inventive step.

VII. The appellants lodged an appeal against that decision.

With the statement setting out the grounds of appeal appellant-opponent 4 submitted the following evidence:

E31: "Spezifikationen des Milli-Q Produktwassers"
E32: Physician's Desk Reference, 56th editions, 2002, "Protonix i.v."
E33: Pharmazeutische Technologie, 2. Auflage, Georg Thieme Verlag, Stuttgart, New York, 1989, pages 289-290
E34: WO-A-2005/018639

With the letter of 21 April 2015, appellant-opponent 4 submitted the following evidence:

E36: Declaration of Mateja Cegnar dated 17 April 2015

E37: Reproduction of pantoprazole-lyophilisates according to examples 1-4 of EP-A-1 339 430 signed by Mateja Cegnar on 17 April 2015

VIII. In the reply to the statements setting out the grounds of appeal dated 16 September 2011, the patent proprietor (respondent) designated the main request as being that upon which the decision of the opposition division was based, and filed four auxiliary requests.

Independent claim 1 of the first auxiliary request differed from that of the main request by the limitation of the second component of the solution to be freeze-dried to "a suitable salt of ethylenediamine tetraacetic acid" and of the third component to "sodium hydroxide or sodium hydroxide and sodium carbonate".

Independent claim 1 of the second auxiliary request differed from claim 1 of the first auxiliary request in the limitation of the third component to "sodium hydroxide".

Independent claim 1 of the third auxiliary request differed from that of the first auxiliary request by the limitation of the first component to the "sodium salt of pantoprazole or a solvate thereof", while claim 1 of the fourth auxiliary request comprised the limitations applied to claim 1 of both the second and third auxiliary requests.

With the same letter, the respondent filed the following evidence:

E35: Pantoprazole 40 mg powder for solution for injection, January 2011

IX. In a communication sent in preparation of oral proceedings, the Board addressed *inter alia* the inventive step of the process claims of the main request. In particular, the formulation of the problem solved in the light of the experimental evidence on file was discussed.

X. Oral proceedings were held on 21 May 2015.

XI. The arguments of the appellants, insofar as relevant to the present decision, can be summarised as follows:

Admittance of the new evidence

a) Documents E32, E33 and E34 were filed with the statement setting out the grounds of appeal and in reaction to the opinion of the opposition division that "in the absence of a mechanistic explanation of the number of subvisible particles, it cannot be expected that an effect obtained for omeprazole would also be obtained for pantoprazole". They were highly relevant and should be admitted into the proceedings. Documents E36 and E37 although filed late were highly relevant in that they were filed in direct response to objections raised by the respondent in respect of the test report E23, and should also be admitted into the proceedings.

b) E35 filed by the respondent in reply to the statements setting out the grounds of appeal should not be admitted into the proceedings, as its relevance was questionable, particularly in view of the formulation disclosed therein not being identical to that of example 1 of E3.

Inventive step - main request

c) E3 was a suitable closest prior art disclosure, example 1 thereof differing from the process of claim 1 of the main request in that the solution freeze-dried in the latter did not comprise mannitol (a supporting agent), and included EDTA in place of sodium citrate as the metallic ion complexing agent. With regard to the alleged technical effect of providing a lower number of subvisible particles after reconstitution with a solvent, no convincing evidence had been provided. Firstly, the data submitted in E23 confirmed that the preparations according to the patent did not exhibit any technical effect versus the comparative preparations. The argument of the respondent whereby the tests of E23 were not to be considered a valid reproduction of the examples of the patent due to the use of a differing grade of water, the use of an EDTA-Na stock solution and the length of the secondary drying step was without merit, since in the patent none of those features was discussed, let alone identified as being of any importance. Secondly, since claim 1 of the main request did not require that sodium hydroxide be added from an external source, but might also be generated *in situ*, example 4 of the patent, which discloses freeze-drying of an aqueous solution consisting of pantoprazole sodium sesquihydrate and disodium EDTA at a pH of 10.2, and batch A1 of E29 would appear to comprise sodium hydroxide and thus fall under the scope of claim 1. Since according to table 1 of the patent example 4 resulted in more subvisible particles than comparative example 3, a product without EDTA, and according to table 1 of E29 batch A1

resulted in more subvisible particles than the other batches, it followed that an effect could not be acknowledged across the scope of the claim. Furthermore, according to the test report E29, batch A2 (table 1), which was not according to the invention, provided the least number of subvisible particles. This batch comprised the addition of aqueous hydrochloric acid, which resulted in the generation of sodium chloride. Since sodium chloride was a "supporting agent" in the context of E3, this batch fell within the scope of the teaching of E3.

d) Since sufficient evidence of the alleged effect was not provided, it could not be taken into account in determining the problem underlying the invention. Accordingly, the objective problem was the provision of an alternative process for the production of a freeze-dried pantoprazole preparation. The solution proposed in claim 1 of the main request was obvious in view of E3 alone, or in combination with E19 or E20 which disclosed omeprazole preparations comprising EDTA disodium salt and sodium hydroxide.

e) In an alternative approach, the alleged technical effect was of an artificial nature and lacked technical relevance in the light of the standards represented by E25, which stated that the requirements for particulate matter in injections were met if the number of subvisible particles per vial was less than 6000, so that it could not be taken into account in formulating the objective technical problem.

Inventive step - auxiliary requests

f) The conclusions reached for claim 1 of the main request applied to claim 1 of each successive auxiliary request following the same reasoning.

XII. The arguments of the respondent, insofar as relevant to the present decision, can be summarised as follows:

Admittance of the new evidence

a) E32 and E34 were not relevant as they were published after the priority date of the application, while E33 was at first glance not relevant to the subject-matter of the patent. These documents should not be admitted into the proceedings. E36 and E37 were filed by appellant-opponent 4 one month in advance of oral proceedings before the Board and allegedly in response to objections raised by the proprietor with respect to the test report E23. However, similar objections were already raised by the proprietor in first instance proceedings. The objections were furthermore raised in the reply to the statements setting out the grounds of appeal dated 16 September 2011, and thus the evidence concerned should have been filed at an earlier stage, and therefore was not to be admitted into the proceedings.

b) E35 was filed in response to the objections of the appellants in respect of the relevancy of E3 and disclosed a commercial product comprising the same ingredients as example 1 of E3, thus demonstrating that, at most, E3 was only partially defective.

The document was thus highly relevant and should be admitted into the proceedings.

Inventive step - main request

c) E3 was the closest prior art, example 1 thereof differing from the process of claim 1 of the main request in that the solution freeze-dried in the latter did not comprise mannitol (a supporting agent), and included EDTA in place of sodium citrate as the metallic ion complexing agent. The technical effect of providing a lower number of sub-visible particles after reconstitution with a solvent was relevant despite the teaching according to E25 that the number thereof should be less than 6000, since the injection formulations according to the invention were provided to high risk patients needing intensive care, and accordingly the number of subvisible particle should be as low as possible.

d) The experimental data provided in the patent as well as in the test reports E29 and E30 demonstrated that the effect was achieved by the process of claim 1. Although the data in example 1-4 of the patent differed by more than a single variable, this was necessary in order to provide comparative pH values, and example 1 still showed that the desired effect was achieved. With respect to the tests E29, hydrochloric acid had been added to batch A2 for the same reason. E30 provided evidence that a batch prepared according to example 1 of the patent was superior to a batch prepared according to example 1 of E3. The tests E23 filed by appellant-opponent 4 should be disregarded as they did not represent an exact

reworking of the examples of the patent. Specifically, they differed in the type of water used (thus changing the ion concentration therein), the EDTA solution was prepared in E23 as a stock solution, and the length of the secondary drying had been increased compared to that carried out according to the examples of the patent.

e) The argument that the effect was not achievable over the whole scope of the claim since, if magnesium or calcium salts of pantoprazole were used, these would be sequestered by EDTA, rendering the latter inactive, was merely theoretical and no evidence had been supplied in this regard. The skilled person would know in any case that if the respective salt was sequestered by EDTA, one would merely be required to add more EDTA. Should it be argued that the effect had not been demonstrated in the patent for the compositions comprising the magnesium and calcium salts of pantoprazole, it would be reasonable in this regard to allow the formulation of two separate technical problems within claim 1: one in respect of subject-matter for which the effect had been demonstrated (such as the sodium salts), formulated as an improvement, and another second technical problem in respect of the other salts such as magnesium and calcium, formulated as an alternative.

f) The argument that example 4 of the patent, which discloses freeze-drying of an aqueous solution consisting of pantoprazole sodium sesquihydrate and disodium EDTA at a pH of 10.2, and batch A1 of E29 would appear to comprise sodium hydroxide and thus fall under the scope of claim 1 of the main

request was not valid, since the claims required the *addition* of sodium hydroxide, not the *in situ* generation thereof.

g) In conclusion, the test data provided by the respondent demonstrated that the alleged effect had been achieved, and the objective problem was consequently the provision of a process for producing a freeze-dried pantoprazole preparation which had a lower number of subvisible particles after reconstitution with a solvent.

h) The solution to the objectively formulated problem was not obvious in view of E3, of which example 1 was the only working example. There was no motivation for the skilled person aiming at solving the problem to omit mannitol as supporting agent, and furthermore replace the citric acid with EDTA which was mentioned in a list of E3. Neither would the commercial omeprazole preparations disclosed in e.g. E19 incite the skilled person to make the required changes to E3, since there was no teaching in E19 that the composition thereof led to the production of fewer subvisible particles and would consequently provide a solution to the technical problem. The subject-matter of the main request was consequently inventive.

Inventive step - auxiliary requests

i) The same arguments were valid for stronger reasons for the more limited subject-matter of the auxiliary requests.

XIII. The appellants requested that the decision under appeal be set aside and the patent be revoked.

XIV. The respondent requested that the appeals be dismissed, alternatively that the decision under appeal be set aside and the patent be maintained according to one of the sets of claims filed as first to fourth auxiliary requests with letter of 16 September 2011.

Reasons for the Decision

Admittance of the new items of evidence

1. Documents E31, E32, E33 and E34 were filed by appellant-opponent 4 with the statement setting out the grounds of appeal to reinforce the relevance of the tests in E23, so as to undermine the problem solved as formulated in the appealed decision, (E31) and to counter the position taken in the decision that no mechanistic explanation was available for the number of subvisible particles (E32-E34). Document E35 was filed by the respondent with the reply to the statements of grounds in response to the objections of the appellants in respect of the relevance of E3. All these documents were therefore timely filed by the parties in appeal and can be seen as legitimate reactions to the decision or to the statement of grounds, so that the Board sees no reason under Article 12(4) RPBA not to admit them. On that basis documents E31 to E35 are admitted into the proceedings.

2. Documents E36 and E37 were filed by appellant-opponent 4 one month in advance of oral proceedings before the Board and allegedly in response to objections raised by the proprietor with respect to the test report E23. However, said objections were raised

by the proprietor during first instance proceedings and again in appeal proceedings with the reply to the statements of grounds, more than three and a half years before oral proceedings before the Board. In addition, there was no justification for their filing at such a late stage. Moreover, they introduce new experimental evidence without giving reasonable time to the opposing party to evaluate the evidence and to possibly file counter-evidence. In view of that the Board finds it appropriate to exercise its discretion under Article 13 RPBA by not admitting documents E36 and E37 into the proceedings.

Main request - inventive step of process claim

3. *Closest prior art*

3.1 Both in the decision under appeal and in the arguments of the parties, document E3 is considered as the closest prior art. The Board sees no reason to choose a different approach.

3.2 E3 relates to stable and easy to work up freeze-dried pantoprazole injection compositions and a process for the production thereof (page 1, lines 1-2 and lines 20-22). Said composition is a freeze-dried powder without crystal water with a pH in the range 9-12.5, which comprises sodium pantoprazole, a "supporting agent", a "metallic ion complexing agent" and a "pH conditioning agent" (claim 1). For the latter three agents a list of possible ingredients is given in the description (page 2, first full paragraph); the metallic ion complexing agent may be EDTA and the pH conditioning agent may be sodium hydroxide or sodium carbonate (page 2, first full paragraph).

3.3 It is undisputed that example 1 of E3 (pages 4 and 5), whose solution to be freeze-dried consists of sodium pantoprazole, mannitol (as supporting agent), sodium citrate (as metallic ion complexing agent) and sodium hydroxide (as pH conditioning agent), represents the only working example thereof and that the differences between the process of claim 1 of the main request and the one of example 1 of E3 are the absence in the solution to be freeze-dried of a supporting agent (mannitol in example 1 of E3), and the use of EDTA instead of sodium citrate as ion complexing agent.

Technical problem solved

3.4 The problem to be solved according to the application as filed is to provide a process for producing a freeze-dried pantoprazole preparation which has a lower number of subvisible particles after reconstitution with a solvent compared to lyophilisates of the prior art, is very stable and is easily reconstituted with suitable solvents (application, page 2, paragraph 2).

3.5 While an improvement in stability or in facility of reconstitution with respect to E3 has not been claimed by the respondent, there is disagreement among the parties on whether the reduction of subvisible particles after reconstitution should be taken into account in the formulation of the problem effectively solved by the claimed subject-matter. To decide on this issue, the evidence on file must be examined in order to determine whether the effect of reducing the number of subvisible particles after reconstitution with a solvent with respect to the disclosure of E3 can be acknowledged.

3.6 As to the tests in the patent (examples 1 to 4 in paragraphs [0013]-[0018]) meant to show the effect of sodium hydroxide and EDTA disodium salt in combination (example 1) over the cases in which both (example 2) or one of the two ingredients (examples 3 and 4) are absent, the respondent has conceded in oral proceedings before the Board that more than one parameter was changed at a time (changes in quantities together with omission of components) in comparing example 1 according to the invention with the comparative example 2-4. As justification therefor, the respondent argues that such changes were necessary in order to maintain the pH of each example at approximately the same value, thereby allowing a fair comparison.

3.7 Firstly, the examples of the patent do not provide a comparison with the closest prior art E3. Secondly, while the Board does not question the reason provided by the respondent, it does not alter the fact that, as a result of the variation of more than one parameter at a time, it is impossible to draw reliable conclusions from the data provided in the patent with respect to advantages related to the presence of sodium hydroxide and EDTA in combination.

3.8 For the same reasons, the same holds for the test report E23 filed by appellant-opponent 4, which was intended as a repetition of the examples in the patent to show that a reduction of subvisible particles is not obtained.

3.9 Despite this finding, a comparison between the respective tests reveals further information relevant to the issue at hand. The tests of E23 reveal that the repetition of example 1 of the patent led to *more* subvisible particles than those of the comparative

examples, the opposite of that which was demonstrated in the examples of the patent (see in particular the summarising table on page 8, point 9 of E23). The respondent has argued that the results provided by E23 should be disregarded, as they do not represent an exact reworking of the examples of the patent. Specifically, they differed in the type of water used (thus changing the ion concentration therein), the EDTA solution was prepared in E23 as a stock solution, and the length of the secondary drying was increased compared to that carried out according to the examples of the patent.

3.10 The patent application fails to teach that the differences identified by the respondent in the reworked tests of E23 as the reason for the discrepancy in the results are of any importance. Indeed, if said differences were to be the cause of the dramatic effect observed on the comparative outcome of the respective tests, one would have expected them to be identified as features which were essential to the invention, and thus either part of the independent claims or at least identified as such in the description.

3.11 Said features are however neither comprised within the process of independent claim 1, nor given any weight (or even mentioned) in the description. It follows that, although not necessarily identical to the tests carried out according to the patent, the tests of E23 can be seen as a close imitation thereof, the repetition of example 1 falling under the wording of claim 1 of the main request and being conceptually very close to the preferred embodiments of the patent.

3.12 Since the Board has no reason to question the legitimacy of the tests of the patent nor those of E23,

it can only be said that the results provided by E23, in the very least, cast serious doubts on the reproducibility of the examples of the patent. More importantly, since a completely different result can be obtained with tests which differ in the ways described by the respondent, it is even less credible that other embodiments falling under the scope of the claim but conceptually further away from example 1 of the patent will provide the desired effect. Whether the contradiction in the results obtained according to the patent and those of E23 is attributable to the differences in reworking identified by the respondent or to other unidentified factors is irrelevant, the point being that the features of claim 1 of the main request do not reliably lead to the desired effect across the scope of the claim.

3.13 It is not only the tests of E23 which cast doubts on the achievability of the effect across the whole scope of claim 1. The tests of E29, filed by the respondent in an attempt to overcome the objection that the comparative examples of the patent differ in more than one variable, result in casting further serious doubts on said achievability. According to E29, the batch providing the best result in terms of subvisible particle numbers is batch A2 (table 1 on page 2, see results in the last column). This batch comprises pantoprazole sodium sesquihydrate, EDTA-disodium salt, sodium hydroxide and hydrochloric acid (table 1 on page 2, see composition in the third line), and does not fall under the scope of the aqueous solution for freeze-drying recited in claim 1 of the main request by virtue of the limitation "consisting of" in the latter which necessarily excludes the presence of non-mentioned components including hydrochloric acid. According to the respondent, the rationale for adding

hydrochloric acid was to provide solutions having comparative pH values. Nevertheless, what results is an aqueous solution (before freeze-drying) comprising sodium chloride, since the hydrochloric acid present will neutralise part of the sodium hydroxide to form the salt. Batch A2 furthermore comprises an excess of sodium hydroxide in relation to the hydrochloric acid added, such that it is not fully neutralised. Since sodium chloride is a "supporting agent" in the context of E3 (page 2, lines 4-5), it appears that this batch falls within the scope of the teaching of E3 (with EDTA as ion complexing agent and sodium hydroxide as pH conditioning agent, see page 2, first full paragraph of E3).

3.14 Furthermore, batch A1, labelled by the respondent as comparative and consisting prior to freeze drying of an aqueous solution of pantoprazole sodium sesquihydrate and EDTA-disodium salt (table 1 on page 2, see results in the last column and composition in the second line), displays the worst result in terms of the number of subvisible particles observed on reconstitution. However, such a solution will comprise sodium and hydroxide ions in solution and is indistinguishable from a corresponding aqueous solution prepared from ingredients including pantoprazole and/or EDTA in salt-free form, and sodium hydroxide, thereby appearing to fall within the scope of claim 1 of the main request. The same argument applies to example 4 of the patent, which is equally labelled as comparative.

3.15 The respondent counters this argument by stating that claim 1 of the main request *requires* the addition of sodium hydroxide, and excludes that it can be generated *in situ*. However, claim 1 merely states that the aqueous solution to be freeze dried consists of *inter*

alia sodium hydroxide, and places no such limitations on how said solution should be prepared. Consequently, this argument fails, and the Board sees no other reason why the example in question should not be understood to fall within the scope of the claim.

3.16 On the other hand, the test data provided in E30, filed by the respondent to provide data comparing example 1 of the patent with example 1 of E3 (batches B1 and B2 respectively, see page 5, first sentence), shows that batch B1, corresponding to example 1 according to the patent provides less subvisible particles on reconstitution than batch B2 prepared in accordance with example 1 of E3 (see table 2 on page 6).

3.17 While it is not excluded that there may be embodiments falling under the scope of claim 1, such as that demonstrated in E30, which if carried out according to a very specific set of conditions, may result in a decreased number of subvisible particles, the whole of the available experimental evidence as analysed above shows that the nature of the conditions required to achieve that effect remains obscure, so that even E30 does not lend more credibility to the achievability of the effect across the entire scope of claim 1.

3.18 To conclude, the contradictory results obtained in E23 when compared to the patent, the fact that examples (in both E29 and the patent) labelled as comparative actually fall within the scope of claim 1 of the main request and, based on the respondent's own data, fail to provide an improvement over proper comparative examples, and the fact that the best result according to E29 is achieved by a process which falls within the scope of the closest prior art E3 and does not fall under the scope of claim 1 of the main request, lead

the Board to conclude that, in view of the evidence on file, it is not possible to acknowledge the achievement of the effect of providing a lower number of subvisible particles after reconstitution. Consequently this effect cannot be taken taken into consideration in formulating the objective technical problem.

3.19 As the achievement of the effect is not acknowledged, it is not necessary for the Board to decide on its alleged lack of technical relevancy or artificial nature in the light of the standards represented by E25, which state that the requirements for particulate matter in injections are met if the number of subvisible particles per vial is less than 6000 (table 1 on page 1974).

3.20 For the same reason, the respondent's proposal to formulate two separate technical problems within claim 1 of the main request is not relevant and does not need to be addressed.

3.21 It follows that the problem underlying claim 1 of the main request over the disclosure of E3 is the provision of a further process for producing a freeze-dried pantoprazole preparation.

4. Obviousness

4.1 The question remaining is whether the skilled person, starting at example 1 of E3, would arrive at the subject-matter of claim 1 of the main request in an obvious manner in order to solve the problem posed.

4.2 As the problem is simply the provision of a further process, the skilled person would make any number of arbitrary choices within the teaching of E3, one of

those choices being the replacement of sodium citrate in example 1 thereof with edetic acid salt (EDTA salt) chosen from the list of possible alternative metallic ion complexing agents disclosed therein (E3, page 2, lines 5-7). Furthermore, the skilled person learns from the description (E3, page 2, last paragraph) that the supporting agent is intended to make it possible to dissolve the freeze-dried powder rapidly for clinical application, and would not consider it as an essential part of the aqueous composition for freeze-drying, consequently contemplating the possibility of omitting it. In view of that the skilled person, starting from E3 and aiming at solving the posed problem, would arrive at the process of claim 1 of the main request in an obvious manner. Therefore the process of claim 1 of the main request does not involve an inventive step.

Auxiliary requests - inventive step

5. Independent claim 1 of the first auxiliary request differs from that of the main request by the limitation of the second component of the solution to be freeze-dried to "a suitable salt of ethylenediamine tetraacetic acid" and of the third component to "sodium hydroxide or sodium hydroxide and sodium carbonate". Since the "metallic ion complexing agent" according to E3 can be selected from *inter alia* edetic acid salt (page 2, lines 5-7), and example 1 thereof comprises sodium hydroxide (page 4), the conclusion with respect to inventive step remains the same as for the main request.

5.1 The same applies to independent claim 1 of the second auxiliary request, which differs from claim 1 of the first auxiliary request only in the limitation of the third component to "sodium hydroxide".

5.2 Independent claim 1 of the third auxiliary request differs from that of the first auxiliary request by the limitation of the first component to the "sodium salt of pantoprazole or a solvate thereof", while claim 1 of the fourth auxiliary request comprises the limitations applied to claim 1 of both the second and third auxiliary requests. Since example 1 of E3 also employs the sodium salt of pantoprazole (page 4), the same conclusions apply equally as for the main request.

5.3 It follows that the process of claim 1 according to all the auxiliary requests does not involve an inventive step.

Conclusions

6. Since claim 1 according to all requests does not involve an inventive step, there is no need for the Board to decide on any other issue and the patent is to be revoked.

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:

G. Rauh J. Riolo

Decision electronically authenticated