PATENTAMTS

BESCHWERDEKAMMERN BOARDS OF APPEAL OF OFFICE

CHAMBRES DE RECOURS DES EUROPÄISCHEN THE EUROPEAN PATENT DE L'OFFICE EUROPÉEN DES BREVETS

Internal distribution code:

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

Datasheet for the decision of 26 February 2019

Case Number: T 0305/13 - 3.3.08

Application Number: 04713372.3

Publication Number: 1597380

IPC: C12P21/00

Language of the proceedings: EN

Title of invention:

EXPRESSION OF CLASS II MANNOSIDASE AND CLASS III MANNOSIDASE IN LOWER EUKARYOTIC CELLS

Patent Proprietor:

GlycoFi, Inc.

Opponents:

Novartis AG

Lonza Ltd. & Lonza Biologics plc.

Headword:

Class II mannosidase/GLICOFY

Relevant legal provisions:

EPC 1973 Art. 54(3) EPC Art. 56, 83, 84, 123(2), 123(3)

Keyword:

Main request - meets the requirements of the EPC (yes)

Decisions cited:

T 0012/81, T 0019/90, T 0296/93

Catchword:



Beschwerdekammern Boards of Appeal Chambres de recours

Boards of Appeal of the European Patent Office Richard-Reitzner-Allee 8 85540 Haar

GERMANY

Tel. +49 (0)89 2399-0 Fax +49 (0)89 2399-4465

Case Number: T 0305/13 - 3.3.08

DECISION
of Technical Board of Appeal 3.3.08
of 26 February 2019

Appellants: Lonza Ltd.

(Opponents 2) Münchensteinerstr. 38

4052 Basel (CH)

and

Lonza Biologics plc.

228 Bath Road

Slough Berkshire SL1 4DX (UK)

Representative: Wohlfahrt, Jan

Gleiss Große Schrell und Partner mbB

Patentanwälte Rechtsanwälte

Leitzstraße 45

70469 Stuttgart (DE)

Respondent: GlycoFi, Inc.

(Patent Proprietor) 21 Lafayette Street, Suite 200

Lebanon, NH 03766 (US)

Representative: Jaenichen, Hans-Rainer

Vossius & Partner

Patentanwälte Rechtsanwälte mbB

Siebertstrasse 3 81675 München (DE)

Party as of right: Novartis AG

(Opponent 1) Lichtstrasse 35

CH-4002 Basel (CH)

Representative: Cabinet Plasseraud

66, rue de la Chaussée d'Antin 75440 Paris Cedex 09 (FR) Decision under appeal: Interlocutory decision of the Opposition

Division of the European Patent Office posted on 7 November 2012 concerning maintenance of the European Patent No. 1597380 in amended form.

Composition of the Board:

Chairman B. Stolz

Members: M. R. Vega Laso

D. Rogers

- 1 - T 0305/13

Summary of Facts and Submissions

- I. European patent No. 1 597 380 with the title
 "Expression of class II mannosidase and class III
 mannosidase in lower eukaryotic cells" was granted from
 the European application No. 04713372.3 filed under the
 Patent Cooperation Treaty on 20 February 2004 (in the
 following "the application as filed"), claiming the
 priority of two earlier US applications filed on
 20 February 2003 and 8 July 2003. The application was
 published as WO 2004/074498.
- II. Two oppositions were filed based on the grounds for opposition under Article 100(a) in conjunction with Articles 54 and 56, Article 100(b) and Article 100(c) EPC.
- III. In an interlocutory decision posted on 7 November 2012, an opposition division found that the patent could be maintained on the basis of the amended claims according to the auxiliary request 10 then on file and the adapted description filed during the oral proceedings.
- IV. Opponent 1 and opponents 2 both lodged appeals against the interlocutory decision. However, by letter dated 21 February 2013 opponent 1 withdrew its appeal.
- V. Opponents 2 (appellants) filed a statement of grounds of appeal.
- VI. The patent proprietor (respondent) replied to the statement of grounds of appeal, re-filed the set of claims according to the auxiliary request 10 underlying the decision under appeal as its main request in appeal, and submitted eight sets of claims as auxiliary requests I to VIII as well as additional evidence.

- 2 - T 0305/13

- VII. The party as of right (opponent 1) did not make any submissions.
- VIII. Both the appellants and the respondent requested oral proceedings as a subsidiary request.
- IX. The parties were summoned to oral proceedings before the board. In reply to the summons, the appellants and the respondent made additional submissions.
- X. The board sent a communication including observations and its provisional opinion on some of the issues to be discussed at the oral proceedings.
- XI. In reply to the board's communication, the respondent filed eight sets of claims as auxiliary requests 1 to 8 which replaced the auxiliary requests submitted together with the statement of grounds of appeal.
- XII. Oral proceedings were held on 26 February 2019. While duly summoned, the party as of right was not represented. In the course of the oral proceedings, the respondent re-submitted the claims according to the auxiliary request 4 then on file as its new main request.
- XIII. Claims 1, 13, 18 and 19 of the main request read as follows:
 - "1. A method for producing a glycoprotein in a *Pichia* pastoris host cell comprising the step of expressing in the host cell a nucleic acid encoding a chimeric enzyme comprising
 - (a) a mannosidase catalytic domain selected from Table 11, fused to

- 3 - T 0305/13

(b) a cellular targeting signal peptide selected from Table 11, wherein said chimeric enzyme shown in Table 11 is capable of hydrolyzing in vivo more than 50% of the Man α -1,3 and Man α -1,6 linkages of a GlcNAcMan₅GlcNAc₂

substrate.

- 13. A chimeric enzyme as shown in Table 11 comprising a mannosidase catalytic domain fused in-frame to a cellular targeting signal peptide, which upon expression in a *Pichia pastoris* host cell, is capable of hydrolyzing in vivo GlcNAcMan₅GlcNAc₂ to the extent that more than 50 % of the Man α l, 3 and Man α l, 6 linkages of the substrate are hydrolyzed in vivo.
- 18. A glycoprotein composition wherein the glycoproteins are therapeutic glycoproteins, are produced in a host cell of claim 16 or 17, do not contain fucose and comprise at least 50 mole% GlcNAcMan₃GlcNAc₂.
- 19. A glycoprotein composition wherein the glycoproteins are produced in a host cell of claim 11 or 12, do not contain fucose and comprise at least 50 mole% $GlcNAcMan_3GlcNAc_2$."

Dependent claims 2 to 12 are directed to various embodiments of the method of claim 1. Dependent claim 14 is directed to a particular embodiment of the chimeric enzyme of claim 13. Claim 15 relates to a nucleic acid encoding a chimeric enzyme of claim 13 or 14, and claims 16 and 17 to a *Pichia pastoris* host cell comprising a chimeric enzyme of claim 13 or 14, or a nucleic acid of claim 15. Dependent claim 20 is directed to an embodiment of the glycoprotein composition of claim 18 or 19.

- 4 - T 0305/13

- XIV. The following documents are referred to in this decision:
 - (1): WO 03/056914, filed on 24 December 2002 and published on 17 July 2003;

 - (19): I.R. Johnston et al., The Journal of Biological Chemistry, 10 November 1973, Vol. 248, No. 21, pages 7281 to 7288; and
 - (28): T. Shinkawa et al., The Journal of Biological Chemistry, 31 January 2003, Vol. 278, No. 5, pages 3466 to 3473.
- XV. The submissions made by the appellants concerning issues relevant to this decision, were essentially as follows:

Article 123(2) EPC

The subject-matter of claims 18 and 19 extended beyond the content of the application as filed. The application as filed did not disclose directly and unambiguously that the glycoproteins according to the invention did not contain fucose. On the contrary, in paragraph [0543] of the application reference was made to glycoproteins having fucose as preferred human-like glycoproteins produced by the method of the invention. This was in line with the purpose of the method which according paragraph [0041] of the application was the production of a human-like glycoprotein. A glycoprotein

- 5 - T 0305/13

containing fucose was more human-like than a glycoprotein containing no fucose.

The subject-matter of claims 18 and 19 could only be derived from the application as filed by selection from at least four different lists of possible embodiments. The skilled person would have to single out from the list in paragraph [0543] not only a specific number of mannose residues (three), but also the presence (or absence) of one or more sugars, in particular the absence of fucose. Further selection from the lists of possible host cells, various glycan contents and a therapeutic or non-therapeutic use would be necessary.

Article 84 EPC

There was a discrepancy between the percentage of hydrolysis of the Man $\alpha-1$,3 and Man $\alpha-1$,6 linkages of a GlcNAcMan₅GlcNAc₂ substrate specified in claim 1 ("more than 50%") and the glycan content of the glycoproteins specified in claims 18 and 19 ("at least 50 mole% GlcNAcMan₃GlcNAc₂"). Moreover, the meaning of the wording "therapeutic" was unclear and undefined in the application. Hence, the clarity requirement of Article 84 EPC was not met.

Article 83 EPC

The invention according to claims 18 and 19 was not sufficiently disclosed in the application as filed. The application did not disclose how the glycoproteins defined in those claims, which according to paragraph [0113] of the application were (transient) intermediates, could be used as therapeutic agents. The decision under appeal had not dealt with this objection at all.

Article 54(3) EPC 1973

The opposition division decided that the glycoprotein described in document (1) was not a protein that could be directly used in therapy. However, the same applied to the glycoproteins of claims 18 and 19 since they were only transient intermediates. Hence, the claimed glycoproteins did not differ from the protein disclosed in document (1). Furthermore, since the meaning of "therapeutic" was undefined, the term had to be interpreted broadly, and even a placebo effect could be regarded as a therapeutic effect. Although not expressly mentioned in document (1), the glycoprotein described in this document would certainly have some therapeutic effect. Consequently, the subject-matter of claims 18 and 19 lacked novelty over document (1).

- 6 -

Article 56 EPC

Document (17) represented the closest state of the art. This document described the construction of *Pichia pastoris* host cells that produce GlcNAcMan₅GlcNAc₂ glycans which are a substrate for mannosidase II. As the next step of engineering *P. pastoris* host cells for the production of human-like glycoproteins, a modification of the cells for mannosidase II expression was suggested.

The method of claim 1 differed from the method described in document (17) in the provision of a specific set of mannosidase II constructs. The technical effect was a high level of conversion of $GlcNAcMan_5GlcNAc_2$ glycans to $GlcNAcMan_3GlcNAc_2$. The problem to be solved could therefore be seen as the

-7- T 0305/13

provision of a method for such a conversion at a high level.

The purported solution was a method in which a chimeric enzyme with mannosidase II activity was expressed in P. pastoris host cells, which enzyme resulted from the combination of a catalytic domain of a mannosidase II enzyme and a leader sequence as disclosed in Table 11 of the patent. At least some of those leader sequences had been used already in document (17) for expressing other enzymes involved in the production of glycoproteins. Constructing a chimeric mannosidase-II library which comprised chimeric enzymes as disclosed in Table 11 was a matter of routine for a person skilled in the art. The use of P. pastoris as host cell could not render the method inventive because it was already taught in document (17). It was also a matter of routine to screen a library of catalytic domains and leader sequences to find chimeric enzymes catalysing the conversion at an arbitrarily selected level of conversion. Hence, the requirement of Article 56 EPC was not met.

The subject-matter of claims 18 to 20, which were formulated as product-by-process claims, did not involve an inventive step. A product which was defined as a direct result of a non-inventive method could not be inventive. For glycoproteins produced in yeast and fungal cells, the feature "do not contain fucose" was inherent. The glycoproteins produced in P. pastoris could not be distinguished from glycoproteins produced in other fungal host cells.

XVI. The submissions by the respondent, insofar as they are relevant to the present decision, may be summarised as follows:

Article 123(2) EPC

The subject-matter of claims 18 and 19 did not extend beyond the content of the application as filed. The feature "do not contain fucose" was formally supported by the application as filed. It was well known in the art and also mentioned on page 4, lines 5 to 7 of the application that yeast N-glycans were not fucosylated. As defined on page 30, lines 6 to 8 of the application as filed, "human-like" glycoproteins were "proteins having attached thereto N-glycans having three or less mannose residues and synthetic glycoprotein intermediates", and did not necessarily have fucose residues. Only if the yeast strains were modified to express also a fucosyltransferase, the produced glycoproteins had fucose. This was disclosed in paragraph [0543] of the application as filed as a preferred embodiment.

The subject-matter of claims 18 and 19 was not defined by a combination of features selected from various lists of some length. Neither the feature "do not contain fucose" nor the feature "therapeutic" had been chosen from a list. The host cell *P. pastoris* was the preferred host cell of the invention. It was clear from the passage on page 148, lines 19 to 25 that glycoproteins comprising the highest content of at least 50 mole% GlcNAcMan₃GlcNAc₂ was the most preferred.

Article 84 EPC

The term "therapeutic" was present in claims 13 and 14 of the patent as granted and, through back-reference, also in claim 20 as granted, from which claim 18 of the

- 9 - T 0305/13

main request was derived. Hence, the claim was not open to examination under Article 84 EPC.

Article 83 EPC

The enablement objection had been brought forward for the first time in appeal proceedings and, therefore, should be disregarded. There were no serious doubts, substantiated by verifiable facts as to whether the invention according to claims 18 and 18 could be carried out. Hence, the main request complied with Article 83 EPC.

Article 54(3) EPC 1973

The term "therapeutic protein" had to be interpreted in line with what a skilled person would understand. A protein that would have no beneficial effect at all ("placebo effect") would not be regarded as a therapeutic protein. Document (1) described a modified kringle 3 (K3) protein as a reporter protein for studying glycosylation. There was no evidence on file showing that the modified K3 protein could be useful in therapy. Consequently, novelty was to be acknowledged.

Article 56 EPC

The method of the invention concerned the production of glycoproteins, the N-glycans of which had a high content of GlcNAcMan₃GlcNAc₂ as a result of the conversion defined in claim 1. The invention was based on the experimental data disclosed in the patent, in particular in Example 14 and Table 11. While document (17) concerned the re-engineering of the secretory pathway in *P. pastoris* so as to produce predominantly N-glycans that were intermediates of the

- 10 - T 0305/13

human glycosylation pathway, it did not contain any specific teaching that would have guided the skilled reader to mannosidase II constructs catalysing a high level of conversion of GlcNAcMan₅GlcNAc₂ to GlcNAcMan₃GlcNAc₂ on a glycoprotein produced in *P. pastoris*, in particular as regards the five catalytic domains specified in Table 11. Hence, the chimeric mannosidase II constructs recited in claim 1 were not obvious.

The glycoprotein compositions of claims 18 and 19 became available for the first time using the method of the invention. Starting from document (28), the technical problem to be solved was the provision of fucose-free therapeutic glycoproteins having GlcNAcMan₃GlcNAc₂ N-glycans. The solution proposed in claims 18 and 19 was not obvious because document (28) did not at all mention production in a yeast host cell. Hence, the subject-matter of claims 18 and 19 involved an inventive step.

- XVII. The appellants (opponents 2) requested that the decision under appeal be set aside and the patent be revoked.
- XVIII. The respondent (patent proprietor) requested that the decision under appeal be set aside and the patent be maintained upon the basis of the main request submitted during the oral proceedings before the board on 26 February 2019.

- 11 - T 0305/13

Reasons for the Decision

Admission of the set of claims according to the main request into the proceedings

- 1. The set of claims of the present main request is identical to the claims according to the auxiliary request IV submitted by the respondent together with its reply to the statement(s) of grounds of appeal. The appellants did not oppose the admission of the request, and the board sees no reason to disregard it. The claims of the present main request differ from those of the auxiliary request 10, which the opposition division considered to be a basis for the maintenance of the patent, in that the wording "more than 40%" in claims 1 and 13, and "at least 40-50 mole%" in claims 18 and 19 has been replaced by "more than 50%" and "at least 50 mole%", respectively. These amendments remedy an issue under Article 123(2) EPC raised already in opposition proceedings, which the board - contrary to the opposition division - regarded as prejudicial to the maintenance of the patent.
- 2. For these reasons, the board decided to exercise its discretion to admit and consider the main request.

Article 123(2)(3) EPC

3. In the decision under appeal, the opposition division found that the feature "do not contain fucose" characterizing the glycoprotein compositions of the present invention was an inherent feature of glycoproteins produced in yeast or fungal host cells and that, therefore, the introduction of this feature

- 12 - T 0305/13

into the claims 20 and 21 of the main request then on file did not offend against Article 123(2) EPC (see point 6 on page 5 of the decision under appeal).

- 4. This finding, which applies equally to claims 18 and 19 of the present main request, is correct. A person skilled in the art can derive directly and unambiguously from the passage on page 4, lines 6 and 7 of the application as filed that glycoproteins expressed in yeast do not contain fucose. The glycoprotein compositions of claims 18 and 19 are produced in the yeast Pichia pastoris. Contrary to the appellants' view, the fact that this yeast could be genetically engineered to fucosylate glycoproteins is not prejudicial. Although such a possibility is mentioned in the application as filed, it is without question that the application discloses glycoprotein compositions produced in a P. pastoris strain that has not been genetically engineered in such a way and, hence, do not contain fucose.
- 5. With regard to the appellants' objection that the subject-matter of claim 18 represents an undisclosed selection from more than one list, the board shares the opposition division's view that the feature "therapeutic" cannot be regarded as a selection from a list of some length (see decision T 12/81, OJ EPO 1982, 296), but only as a choice between two options (i.e. therapeutic or non-therapeutic). The same applies, mutatis mutandis, to the feature "do not contain fucose". Thus, the sole feature in claims 18 and 19 which is considered to be a true selection from a list, is the feature "at least 50 mole%" which is selected from a list of various ranges of GlcNAcMan₃GlcNAc₂ content disclosed on page 30, lines 10 to 13 of the

- 13 - T 0305/13

application as filed. The basis for this feature has not been contested by the opponent.

- 6. It follows from the above that claims 18 and 19 do not contravene Article 123(2) EPC.
- 7. No objections under Article 123(3) EPC were raised in appeal proceedings, and the board sees no reason to raise any of its own motion.

Article 84 EPC

- 8. The appellants' allegation that there is an inconsistency between the features "more than 50%" in claims 1 and 13, and "at least 50 mole%" in claims 18 and 19 is not justified. It should be noted that the first feature characterizes the activity of a chimeric enzyme according to the invention and defines the relative amount of Man α -1,3 and Man α -1,6 linkages of a GlcNAcMan₅GlcNAc₂ which are hydrolysed by the chimeric enzyme, whereas the second feature defines the mole percentage of GlcNAcMan3GlcNAc2 glycan present in the glycoproteins contained in the claimed glycoprotein composition. Since there is no one-to-one correlation between the two parameters, there is also no requirement of "consistency" between them. Hence, the objection under Article 84 EPC fails.
- 9. As regards the appellants' objection to the term "therapeutic", the board shares the respondent's view that a person skilled in the art understands this term as defining a protein that is used for therapy of human or animal patients. Since this is, in the board's knowledge, the meaning generally accepted in the art, the fact that the application does not define the term

- 14 - T 0305/13

"therapeutic" cannot be regarded as a clarity deficiency within the meaning of Article 84 EPC.

Article 83 EPC

- 10. In appeal proceedings, the appellants did not pursue the objections on which the opposition division decided (see point 3, starting on page 8 of the decision under appeal), but argued that the application as filed did not disclose how glycoproteins containing GlcNAcMan₃GlcNAc₂ glycans which existed only as transient intermediates could be used as therapeutic agents.
- 11. It is established jurisprudence of the Boards of Appeal that an objection of lack of sufficient disclosure can only succeed if there are serious doubts, substantiated by verifiable facts, as to whether the invention can be carried out by a person skilled in the art on the basis of the disclosure in the application as filed supplemented by the common general knowledge (see, inter alia, T 19/90, OJ EPO 1990, 476).
- 12. In the present appeal, the appellants neither raised serious doubts nor put forward any verifiable facts that supported their objection. Contrary to the appellants' allegation, the fact that in a "natural" glycosylation pathway glycoproteins with GlcNAcMan₃GlcNAc₂ glycans are (transient) intermediates does not necessarily mean that, when produced in a genetically engineered host cell with a modified glycosylation pathway, such glycoproteins cannot be used as therapeutic agents. Hence, the objection under Article 83 EPC fails.

- 15 - T 0305/13

Article 54(3) EPC 1973

- 13. In the decision under appeal, the opposition division found that the subject-matter of the claims of the auxiliary request IX then on file was novel in view of documents (1) and (19). The opposition division held that the modified kringle 3 protein described in document (1) could not be considered to be a therapeutic protein (see paragraph bridging pages 9 and 10 of the decision under appeal).
- 14. The objection based on document (19) was not pursued by the appellants in appeal proceedings.
- As regards document (1), the findings in the decision 15. under appeal apply, mutatis mutandis, to the subjectmatter of the present claims, which except for the limitation to Pichia pastoris as host cell and the amended feature "more than 50%" in claims 1 and 13, and the amended feature "at least 50 mole%" in claims 18 and 19, correspond to the claims of the auxiliary request IX in opposition proceedings. The board does not accept the appellants' interpretation of the term "therapeutic" in claims 18 and 19, as referring to any kind of effect of the glycoproteins when used for therapy, including a placebo effect. This interpretation goes clearly beyond what a person skilled in the art would understand to be a therapeutic agent. In any case, even if the board were to accept the appellants' unduly broad interpretation of the term "therapeutic", there is no evidence on file that the modified kringle 3 protein described in document (1) may have even a placebo effect.
- 16. Thus, also the objection of lack of novelty fails.

- 16 - T 0305/13

Article 56 EPC

Claims 1 to 12

- 17. In appeal proceedings it was common ground that document (17) represents the closest state of the art for the subject-matter of claim 1. This document describes a method for producing a glycoprotein in a P. pastoris host cell comprising the step of expressing a nucleic acid encoding a chimeric enzyme comprising a mannosidase catalytic domain and a cellular targeting signal peptide. The mannosidase is a class I mannosidase (see page 5026, left hand column under the heading "Expression of $\alpha-1$, 2-Mannosidase Fusion Constructs in a P. pastoris och1 Mutant Strain"). Host cells additionally expressing a chimeric $\beta-1,2-N$ acetylglucosaminyltransferase I (GnTI) were shown to produce N-glycans of the GlcNAcMan₅GlcNAc₂ type in high yield. It is stated in the last sentence of the discussion (see page 5027, right-hand column) that the additional removal of 1,6- and 1,3-mannose from the tri-mannose core and the further addition of $\beta-1$, 2-GlcNAc will be required to generate complex N-glycans of therapeutic utility.
- The difference between the method of document (17) and that of claim 1 is the use of a host cell expressing a class II mannosidase which is capable of removing the 1,6- and 1,3-mannoses from the tri-mannose core of GlcNAcMan₅GlcNAc₂. The technical effect being the conversion of GlcNAcMan₅GlcNAc₂ to GlcNAcMan₃GlcNAc₂, the problem to be solved can be formulated as the provision of a method for producing a glycoprotein comprising GlcNAcMan₃GlcNAc₂ as N-glycan. It is undisputed that this problem is solved by the method of claim 1.

- 17 - T 0305/13

- 19. The appellants argued that the solution proposed in claim 1 was obvious in view of document (17) alone, because this document provided all the information required by the skilled person to find a chimeric mannosidase-II construct that converts GlcNAcMan₅GlcNAc₂ to GlcNAcMan₃GlcNAc₂.
- 20. The board disagrees. Document (17) provides very little information on the ER/Golgi leaders and catalytic domains used to construct the libraries. Although leader sequences from various genes are mentioned in this document (see page 5025, under the heading "Construction of ER/Golgi leader, α -1,2-Mannosidase, and GnTI Libraries"), there is no information at all with respect to their length, an information that as apparent from the results in Table 11 of the present patent seems to be highly relevant as regards the yield of conversion of GlcNAcMan₅GlcNAc₂ to GlcNAcMan₃GlcNAc₂. Nor does document (17) provide any information on suitable class II mannosidases.
- Thus, even though the skilled person starting from document (17) might have been motivated by the statements in the last sentence on page 5027 of this document ("... additional Man removal (i.e. the removal of 1,6- and 1,3-Man from the trimannose core) and further addition of β-1,2-GlcNAc will be required to generate complex N-glycans of therapeutic utility ...") to provide a method for producing a glycoprotein with GlcNAcMan₃GlcNAc₂ as N-glycan in a P. pastoris host cell, in order to solve this problem he/she had to embark on a research project with uncertain outcome. The skilled person had to identify suitable enzymes for removing 1,6- and 1,3-Man from GlcNAcMan₅GlcNAc₂, and combine the catalytic domain of those enzymes with a

- 18 - T 0305/13

leader sequence that efficiently directs the chimeric enzyme to the cellular compartment where the conversion of $GlcNAcMan_5GlcNAc_2$ to $GlcNAcMan_3GlcNAc_2$ takes place. While when embarking on this research the skilled person might have hoped to succeed in providing a method as claimed which requires the design of a chimeric enzyme to catalyse the conversion with high yield, the board is not persuaded that, on the basis of the scarce information provided in document (17), even if supplemented by the common general knowledge in the art, he/she could have reasonably expected a successful conclusion of the project within acceptable time limits (see decision T 296/93, OJ EPO 1995, 627, point 7.4.4). Hence, in accordance with the jurisprudence of the Boards of Appeal the board concludes that, in the absence of a reasonable expectation of success, an inventive step must be acknowledged for the method of claim 1 of the main request.

22. Thus, the subject-matter of claim 1 satisfies the requirements of Article 56 EPC. This applies, mutatis mutandis, also to the subject-matter of dependent claims 2 to 12.

Claims 18 to 20

- 23. Starting from document (17) as the closest state of the art, the reasons given above for acknowledging an inventive step in respect of the methods of claims 1 to 12 apply equally in respect of the glycoproteins produced by such a method.
- 24. The opposition division's assessment of inventive step starting from document (28), which in the decision under appeal was considered to be the closest state of the art for the subject-matter of claims 18 to 20, has

- 19 - T 0305/13

not been contested by the appellants, and the board sees no reason to question it.

25. Summarising the above, the board concludes that the claims according to the present main request and the invention to which they relate meet the requirements of the EPC.

Order

For these reasons it is decided that:

- 1. The decision under appeal is set aside.
- The case is remitted to the Opposition Division with the order to maintain the patent on the basis of claims 1 to 20 according to the main request filed at the oral proceedings before the board on 26 February 2016 and a description to be adapted.

The Registrar:

The Chairman:



L. Malécot-Grob

B. Stolz

Decision electronically authenticated