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**Datasheet for the decision  
of 11 July 2013**

**Case Number:** T 0480/11 - 3.3.09

**Application Number:** 01901132.9

**Publication Number:** 1248536

**IPC:** A23L 3/3571, C12N 1/20,  
C12N 1/04

**Language of the proceedings:** EN

**Title of invention:**  
Porphyrin containing lactic acid bacterial cells and use thereof

**Patent Proprietor:**  
Chr. Hansen A/S

**Opponent:**  
DuPont Nutrition Biosciences ApS

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 83  
RPBA Art. 12(4), 13(1) and (3)

**Keyword:**  
"Admissibility of appeal - yes"  
"Admissibility of claim requests - yes (auxiliary request 1);  
no (new auxiliary request 2)"  
"Allowability of the request to hear a witness - no"  
"Sufficiency of disclosure - no (auxiliary requests 1-5)"

**Decisions cited:**  
T 0694/92, T 0326/04, T 1063/06, T 1456/06, T 0809/07

**Catchword:**  
-



Case Number: T 0480/11 - 3.3.09

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.09  
of 11 July 2013

**Appellant:** Chr. Hansen A/S  
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**Representative:** Grünecker, Kinkeldey,  
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**Respondent:** DuPont Nutrition Biosciences ApS  
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**Representative:** Williams, Aylsa  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 10 December 2010  
revoking European patent No. 1248536 pursuant  
to Article 101(3)(b) EPC.

**Composition of the Board:**

**Chairman:** W. Sieber  
**Members:** M. O. Müller  
R. Menapace

## **Summary of Facts and Submissions**

- I. This decision concerns the appeal by the proprietor of European patent No. 1 248 536 against the opposition division's decision to revoke the patent.
- II. The opponent had requested revocation of the patent in its entirety on the grounds that the claimed subject-matter was neither novel nor inventive (Article 100(a) EPC), that the patent did not disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 100(b) EPC) and that the patent contained subject-matter which extended beyond the content of the application as filed (Article 100(c) EPC).

The documents submitted during the opposition proceedings included:

D11: Declaration of Annabelle Schmitz and Frédéric Lombardi, signed 28 June 2007; and

D12: Declaration of Massoud R. Zargahi, signed 28 June 2007.

- III. The opposition division's decision, announced orally on 13 October 2010 and issued in writing on 10 December 2010, was based on a main request and auxiliary requests 1 to 3. The only request with regard to which the opposition division provided detailed reasons concerning sufficiency of disclosure (the subject-matter of the present decision) was the main request, claim 1 of which read as follows:

*"1. A culturally modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d."*

The opposition division held that there was sufficiency of disclosure for the main request, essentially for the following reasons:

The invention underlying the main request was sufficiently disclosed, at least as far as the strain *Lactococcus lactis* CHCC373 was concerned. It appeared possible to reproduce the invention and to determine the amount of cytochrome d in the culturally modified lactic acid bacterial cells as shown in D11 and D12. The opponent's argument that some bacterial strains did not produce cytochrome d was not persuasive. More specifically, the inclusion of some non-working embodiments in the claims was acceptable since the specification appeared to contain sufficient information on the relevant criteria for finding appropriate alternatives over the claimed range without undue burden. This information took the form of indications as to the bacterial species that could produce cytochrome d and proof that the selected strain produced cytochrome d effectively in the amounts indicated by the claim. Furthermore, the proprietor had argued that a majority of the strain produced by Chr. Hansen and tested in the laboratory produced cytochrome d, and although some trial and error might be necessary to select the suitable strains, no undue burden was put on the skilled person as the results

obtained - with producing and non-producing strains - were repeatable.

However, the patent was revoked since the subject-matter of the main request lacked novelty, the subject-matter of auxiliary requests 1 and 2 lacked inventive step and auxiliary request 3 was not admitted into the proceedings.

IV. On 21 February 2011, the proprietor (hereinafter: "the appellant") filed a notice of appeal against the above decision and paid the prescribed fee on the same day. A statement setting out the grounds of appeal was filed on 20 April 2011 together with the following request:

*"It is requested that:*

- 1. the decision with regard to the above-mentioned opposition be set aside; and the European patent be maintained on the basis of the claims, description and drawings as granted.*
- 2. It requested [sic] that the European patent be maintained on the basis of the "Main Request" dated September 13, 2010.*
- 3. It is requested that the European patent be maintained on the basis of new Auxiliary Request A submitted herewith.*
- 4. It is requested that the European patent be maintained on the basis of new Auxiliary Request B submitted herewith.*

5. *It is requested that the European patent be maintained on the basis of "Auxiliary Request 1" submitted during the Oral Proceedings dated October 13, 2010.*
  6. *It is requested that the European patent be maintained on the basis of new Auxiliary Request C submitted herewith.*
  7. *It is requested that the European patent be maintained on the basis of "Auxiliary Request 2" submitted during the Oral Proceedings dated October 13, 2010.*
  8. *It is requested that the European patent be maintained on the basis of "Auxiliary Request 3" submitted during the Oral Proceedings dated October 13, 2010.*
  9. *Also the reimbursement of the Appeal Fee is requested (see section 5.2 below)."*
- V. On 9 September 2011, the opponent (hereinafter: "the respondent") filed its response to the grounds of appeal together with

D19: Declaration of Frédéric Lombardi, signed 4 July 2011; and

D20: Declaration of John Holm, signed 11 July 2011.

Apart from commenting on the substantive issues, the respondent argued that the appeal should be rejected as inadmissible. The appellant had filed eight mutually

- exclusive requests but had not clearly provided a request defining the subject of the appeal, contrary to Rule 99(1)(c) EPC.
- VI. On 21 December 2012, the board communicated its preliminary opinion to the parties. As regards sufficiency of disclosure, the board stated that it had to be discussed whether the required cytochrome d amount could be obtained with any starter culture organisms as covered by claim 1 and if not, whether the skilled person was able to select, without undue burden, those starter culture organisms that resulted in the required cytochrome d amount.
- VII. By letter of 11 June 2013, the appellant withdrew its request to maintain the patent on the basis of the claims as granted as well as its auxiliary requests A and B. The previous main request and auxiliary request 1 were maintained. Previous auxiliary requests C and 2 were renumbered as auxiliary requests 2 and 3, respectively. Furthermore, new auxiliary requests 4 and 5 were filed.
- VIII. By letter of 13 June 2013, the appellant announced that Mr Johansen would be present as a technical expert during the oral proceedings. It was requested that *"Dr. Johansen will be allowed to provide comments on any technical issue relating to the claimed invention that might come up during the hearing."*
- IX. On 11 July 2013, oral proceedings were held before the board. When the proceedings opened, the appellant withdrew its main request filed on 20 April 2011. The respondent requested that auxiliary request 1 not be

admitted into the proceedings. After the board had pronounced its opinion on auxiliary request 1, the appellant filed a new auxiliary request 2, the admissibility of which was objected to by the respondent. During the discussion on the admissibility of new auxiliary request 2, the appellant requested that Mr Johansen be heard on *"their experience of repeating the claimed invention with other strains of Lactococcus lactis and their observed success rate in providing Lactococcus strains fulfilling the requirements of claim 1 of the newly presented auxiliary request 2"*. The respondent requested that this request to hear Mr Johansen be refused. When asked to formulate its final requests, the appellant withdrew its request for reimbursement of the appeal fee.

X. Each claim 1 of the appellant's claim requests reads as follows:

- *"1. A culturally modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d, wherein the cell is a bacterial species selected from the group consisting of Lactococcus spp. and Leuconostoc spp.." (auxiliary request 1)*
  
- *"1. A culturally modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d, wherein the cell is a bacterial species which is*



*of Lactococcus lactis, including Lactococcus lactis strain CHCC373 deposited under the accession number DSM12015." (new auxiliary request 2)*

- *"1. Use of a modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d, wherein the cell is a bacterial species selected from the group consisting of Lactococcus spp. and Leuconostoc spp. in a starter culture for the manufacturing of a food or feed product." (auxiliary request 2)*
  
- *"1. A starter culture composition ... wherein the culturally modified lactic acid bacterial cell is a culturally modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d, wherein the cell is a bacterial species selected from the group consisting of lactococcus spp. and Leuconostoc spp.." (auxiliary request 3)*
  
- *"1. A method ... wherein the culturally modified lactic acid bacterial cell is a culturally modified lactic acid bacterial cell that has, relative to the cell from which it is derived, an increased content of a porphyrin compound, wherein the cell contains at least 0.1 ppm on a dry matter basis of cytochrome d, wherein the cell is a*

*bacterial species selected from the group consisting of Lactococcus spp. and Leuconostoc spp., ..."* (auxiliary requests 4 and 5).

XI. The appellant's arguments can be summarised as follows:

- Auxiliary request 1

Auxiliary request 1 should be admitted into the proceedings. This auxiliary request was not identical to previous auxiliary request 3 that had been withdrawn during the opposition proceedings. Therefore, this withdrawal had not been a way to prevent the taking of a decision on auxiliary request 1. Furthermore, claim 1 of auxiliary request 1 was already present in auxiliary request 1 decided upon by the opposition division, and claim 9 of auxiliary request 1 was already present in the main request - again already decided upon by the opposition division. So the allegation that the appellant had tried to prevent the taking of a decision on these claims was not true. Finally, the withdrawal of claim requests did not constitute an abuse of procedure: it was, on the contrary, intended to simplify the case.

The invention underlying auxiliary request 1 was sufficiently disclosed. All that the skilled person needed to do was to take all available strains out of the fridge, feed them with haem and test their cytochrome d level. Even though this required trial and error, this did not amount to undue burden, since in particular in the field of biotechnology, trial and error was not the same as

undue burden. In this respect decision T 694/92 did not apply since the decision referred to a case where problems existed in combining certain features that were not compatible with each other. As regards the question as to whether the skilled person would be able to identify suitable strains without undue burden, the burden of proof was furthermore on the respondent rather than the appellant and the respondent had "cherry-picked" in its experiments those strains that did not work. Irrespective of this, D4 already showed that it was possible to produce the required amount of cytochrome d with *Lactococcus* and *Leuconostoc* strains.

- New auxiliary request 2

The wording "*including Lactococcus lactis strain CHCC373 deposited under the accession number DSM12015*" did not limit claim 1. So in fact, the difference between claim 1 of the two auxiliary requests was that the cell in new auxiliary request 2 had to be selected from the species *Lactococcus lactis* rather than from the genera *Lactococcus* spp. or *Leuconostoc* spp.

Mr Johansen should be heard since what he was going to say was similar to the statement that the proprietor had made during the opposition proceedings and which was quoted in the second part of the fifth paragraph on page 8 of the opposition division's decision.

New auxiliary request 2 should be admitted into the proceedings since the filing thereof had become necessary in view of the new case law the appellant had been confronted with during the oral proceedings before the board. Furthermore the restriction of the bacterial cells to the *Lactococcus lactis* species in claim 1 of new auxiliary request 2 clearly overcame the insufficiency objection raised with regard to auxiliary request 1 such that new auxiliary request 2 was clearly allowable.

- Auxiliary requests 2 to 5

The appellant did not comment on the sufficiency of disclosure of these requests.

XII. The respondent's arguments can be summarised as follows:

- Auxiliary request 1

The claims of this request were almost identical to the claims of auxiliary request 3 filed with the proprietor's letter of 13 September 2010, said request later being withdrawn during the oral proceedings before the opposition division. Auxiliary request 1 should therefore not be admitted into the proceedings pursuant to Article 12(4) RPBA since by first withdrawing this request and later re-filing it during the appeal, the appellant had tried to prevent the taking of a decision on this request by the opposition division. Furthermore, the function of appeal proceedings was to review the opposition

division's decision and therefore the appellant could not start the appeal proceedings with a "brand new" request. Finally, the appellant had constantly filed and withdrawn requests during the opposition and appeal proceedings and this constant shifting of requests constituted an abuse of proceedings.

The invention underlying auxiliary request 1 was insufficiently disclosed. While claim 1 related to any lactic-acid bacterial cell selected from the genera *Lactococcus* and *Leuconostoc*, the patent only provided one example, namely example 1, which related to *Lactococcus lactis* CHCC373. As shown in the declarations D11 and D12, neither the *Lactococcus lactis* strain HP, nor the *Leuconostoc* strain used in D11 and D12 produced any cytochrome d. Even though a reasonable amount of trial and error was permissible when it came to sufficiency of disclosure for instance in an unexplored field or where there were many technical difficulties, the skilled person had to have at his disposal adequate information leading necessarily and directly to success through the evaluation of initial failures. However, this information was missing in the opposed patent and did not form part of the skilled person's general knowledge. In the present case, the skilled person could therefore only establish by trial and error whether or not a particular strain would provide a satisfactory result, and this placed an undue burden of experimentation on the skilled person. As regards the appellant's allegation that the burden of proof would be on the respondent, this

burden had been discharged by the filing of D11 and D12 and even though it was straightforward to file counter-evidence, the proprietor chose not to do so. In this respect, the appellant's statement that the invention was sufficiently disclosed in view of D4 ran counter to the appellant's own statement that D4 was not novelty-destroying.

- New auxiliary request 2

The request to hear Mr Johansen should be refused. This request in fact was a request to hear a witness and it was too late for this. Furthermore, if the witness were to be heard, the respondent would not have any possibility to challenge the witness statement.

New auxiliary request 2 should not be admitted into the proceedings. Even though D11 and D12 had already been part of the opposition proceedings, the appellant had waited until the very last minute to file new auxiliary request 2 and this was a complete abuse of procedure. Moreover, if the claims of new auxiliary request 2 had been filed before, the respondent could have filed more evidence to show that the invention underlying the restricted claims was insufficiently disclosed. Now it was too late to file this evidence.

- Auxiliary requests 2 to 5

For the same reasons as given with regard to auxiliary request 1, the invention underlying auxiliary requests 2 to 5 was insufficiently disclosed.

XIII. The appellant requested that the decision under appeal be set aside and the patent be maintained on the basis of

- auxiliary request 1 filed on 20 April 2011,
- alternatively, new auxiliary request 2 filed during the oral proceedings before the board,
- alternatively, auxiliary request 2 filed as auxiliary request C on 20 April 2011,
- alternatively, auxiliary request 3 filed as auxiliary request 2 on 20 April 2011,
- alternatively auxiliary requests 4 or 5 filed with letter of 11 June 2013.

XIV. The respondent requested that the appeal be rejected as inadmissible, and in the event that the board should find it admissible, that it be dismissed.

## **Reasons for the Decision**

### 1. *Admissibility of appeal*

- 1.1 The respondent requested that the appeal be rejected as inadmissible.

The respondent argued that the appeal was inadmissible since the claim requests were all mutually exclusive in the sense that the patent could not be maintained simultaneously on the basis of the main and any of the auxiliary requests.

It is, however, common practice before the European Patent Office that main and auxiliary requests are submitted as alternative requests and it is therefore self-evident in the statement of grounds of appeal that the requests contained therein are alternative requests rather than requests of equal standing.

Therefore, the board decided that the appeal was admissible.

Auxiliary request 1 (highest-ranking request)

### 2. *Admissibility*

- 2.1 The respondent requested that auxiliary request 1 should not be admitted into the proceedings.

The respondent argued that the claims of auxiliary request 1 were almost identical to the claims of auxiliary request 3, which was filed with the proprietor's letter of 13 September 2010 (hereinafter:



"previous auxiliary request 3") and later withdrawn during the oral proceedings before the opposition division. Auxiliary request 1 should not be admitted into the proceedings pursuant to Article 12(4) RPBA since by first withdrawing this request and later re-filing it during appeal, the appellant had tried to prevent the taking of a decision by the opposition division on this request.

2.2 The board does not find the respondent's argument persuasive. Firstly, previous auxiliary request 3 was not identical to auxiliary request 1 since independent claim 15 of this previous request is not present in auxiliary request 1. This means that the withdrawal of previous auxiliary request 3 does not prove that the opponent tried to prevent the taking of a decision on auxiliary request 1. Secondly, the claims of auxiliary request 1 are an assembly of claims already decided upon by the opposition division, namely claims 1 to 8 of the then auxiliary request 1 and claims 9 to 14 of the then main request. Thus the appellant has not prevented the taking of a decision on these claims.

2.3 The respondent furthermore argued that the function of appeal proceedings was to review the opposition division's decision, so the appellant could not start the appeal proceedings with a "brand new" auxiliary request 1.

As set out above (point 2.2) however, auxiliary request 1 is not entirely new but simply an assembly of claims from the main request along with auxiliary request 1 decided upon by the opposition division.

2.4 The respondent finally argued that the appellant had constantly filed and withdrawn requests during the opposition and appeal proceedings and that this constant shifting of requests constituted an abuse of proceedings.

The board did not concur however: while the appellant may not have presented its claim requests in the most efficient way in terms of procedural economy, this in itself cannot be considered to represent a procedural abuse.

2.5 The board therefore decided to admit auxiliary request 1 into the proceedings.

### 3. *Sufficiency of disclosure*

3.1 Claim 1 refers to a culturally modified lactic acid bacterial cell selected from the group consisting of *Lactococcus* spp. and *Leuconostoc* spp. that contains at least 0.1 ppm on a dry matter basis of cytochrome d (for the exact wording of claim 1, see point X above).

3.1.1 As set out on page 3, line 53 to page 4, line 8 of the opposed patent, the expression "culturally modified lactic acid bacterial cell" in claim 1 relates to a cell of a lactic acid bacterium which has been cultured by fermentation in an appropriate nutrient medium in which an effective amount of at least one porphyrin compound is present. According to page 4, lines 35 to 46 of the opposed patent, it is due to this presence of a porphyrin compound during the culturing that the cells contain at least 0.1 ppm of cytochrome d.

3.1.2 The respondent argued on the basis of D11 and D12 that not all strains of the genera of claim 1 (Lactococcus spp. or Leuconostoc spp.), which have been cultured in the presence of a porphyrin compound, contained the required amount of cytochrome d.

D11 describes the cultivation of eight different strains in the presence of haemin (a porphyrin compound), the eight strains including two Lactococcus strains, namely Lactococcus lactis HP and CHCC373 and one Leuconostoc strain, namely Leuconostoc mesenteroides DSM20848. D12 refers to an analysis in which the cytochrome d amount present in the thus-cultured strains was determined.

It follows from D12 that after the culturing in the presence of haemin, one of the two lactococcus strains, namely Lactococcus lactis HP, and the only Leuconostoc strain, namely Leuconostoc mesenteroides DSM20848 did not contain any cytochrome d, not even the minimum amount of cytochrome d as required by claim 1. This was not disputed by the appellant.

These experimental results thus prove that not all strains falling under the bacterial genera Lactococcus spp. and Leuconostoc spp. of claim 1 can produce the required amount of cytochrome d when cultured in the presence of a porphyrin compound. For the invention underlying claim 1 to be sufficiently disclosed, the skilled person must therefore be able to select without undue burden suitable strains out of the strains belonging to the genera of claim 1 that produce the required cytochrome d amount when cultured in the presence of a porphyrin compound.

3.2 There is no evidence that the skilled person is able to do so on the basis of his common general knowledge.

3.3 It must therefore be examined whether there is any guidance in the opposed patent on the basis of which the skilled person is able to identify suitable strains without undue burden.

The opposed patent discloses only one specific bacterial strain, namely *Lactococcus lactis* CHCC373, and does not contain any information on what other strains could be used to obtain the required amount of cytochrome d.

As set out by the respondent during the oral proceedings, hundreds of different strains fall under the genera of claim 1. Hence, the skilled person has to take each of these hundreds of strains, except for the one CHCC373 strain exemplified in the patent, and check which, if any, amount of cytochrome d each of these strains produces when cultured in the presence of a porphyrin compound. To do so, hundreds of experiments must be performed. In each of these experiments, a fermentation medium must be inoculated with the cells of one particular strain, a porphyrin compound must be added, the cells must be grown in the fermentation medium, the cytochrome d must be isolated in a multiple reslurrying-centrifugation sequence and after the last centrifugation step, the obtained supernatant must be analysed by means of a spectrophotometer to determine the amount of cytochrome d contained therein (page 9, lines 47 to 51 and page 13, line 14 to page 14, line 24 of the opposed patent).

All that the opposed patent thus provides is an invitation to carry out a research programme and to find out by trial and error in hundreds of laborious experiments which strains provide the required cytochrome d amount. This represents an undue burden, so the requirement of sufficiency of disclosure is not fulfilled (see for instance T 1063/06; OJ 2009, 516; headnote II and T 809/07 of 15 April 2010, not published in OJ EPO, headnote).

- 3.4 The appellant did not dispute that trial and error experiments would be necessary in order to identify suitable strains. According to the appellant, the necessity of such trial and error experiments does however not amount to an undue burden and hence does not lead to insufficiency of disclosure, in particular in the field of biotechnology.

The board acknowledges that the need for some trial and error as such does not necessarily imply insufficiency of disclosure if the patent provides adequate information leading directly to success through the evaluation of initial failures and, therefore, only a few attempts are required to transform failure into success (see T 326/04 of 12 December 2006, not published in OJ EPO, point 1.3). It is however exactly this information that is missing in the opposed patent, which is why the skilled person must test, by way of trial and error, each and every one of the hundreds of available strains falling under the genera of claim 1 (except for the one strain *Lactococcus lactis* CHCC373 exemplified in the patent).

Furthermore, the issue of sufficiency of disclosure is a question of fact that has to be decided on a case-by-case basis (see T 694/92; OJ EPO 1997, 408; point 5) and on no account does the need for trial and error experiments automatically lead to insufficiency of disclosure in the field of biotechnology. Yet the boards have deemed there to be insufficiency of disclosure in certain biotechnology cases where trial and error experimentation was needed. Reference is made to T 1456/06 of 31 March 2011 (not published in OJ EPO), where, in relation to a claim directed to the use of an immunogenic fragment in the preparation of a certain vaccine, it was considered that *"identifying immunogenic fragments of the telomerase protein suitable for the manufacture of a vaccine by a trial and error procedure constitutes an undue burden to a person skilled in the art"* and that the requirement of sufficiency of disclosure was therefore not fulfilled (point 39, emphasis added).

- 3.5 The appellant further argued that the burden of proof as regards sufficiency of disclosure was on the respondent rather than the appellant and that the respondent had "cherry-picked" in its experiments those strains that did not work.

However, by submitting the experimental data D11 and D12, the respondent had discharged his burden of proof, so that it was up to the appellant to present refuting evidence and arguments. The appellant has however not commented at all in the present written appeal proceedings on the respondent's insufficiency objections and has not provided any experimental counter-evidence to support its allegation of cherry-

picking. The only "evidence" referred to by the appellant when discussing auxiliary request 1 during the oral proceedings was the prior art document D4 that allegedly showed the possibility of producing the required amount of cytochrome d with culturally modified Lactococcus and Leuconostoc strains. However, this allegation runs counter to the appellant's own statement on page 5 of the statement of grounds of appeal that the cells in D4 *"are not culturally modified cells, since the hemin is added after the culturing phase"* and that *"a quantification of cytochrome d is not derivable from D4"*.

- 3.6 In view of the above, the requirement of sufficiency of disclosure of the invention underlying claim 1 is not fulfilled. Auxiliary request 1 is therefore not allowable.

New auxiliary request 2

4. *Request to hear Mr Johansen*

- 4.1 Claim 1 of new auxiliary request 2 differs from the claim 1 of auxiliary request 1 in that the cell is now restricted to the species Lactococcus lactis (for the exact wording of claim 1 of new auxiliary request 2, see point X above).

- 4.2 During the discussion of the admissibility of new auxiliary request 2, the appellant requested that Mr Johansen be allowed to speak about "their experience of repeating the claimed invention with other strains of Lactococcus lactis and their observed success rate in providing Lactococcus strains fulfilling the

requirements of claim 1 of the newly presented auxiliary request 2".

4.3 The board is aware that the appellant referred to Mr Johansen as a technical expert in its letter of 13 June 2013 and requested that Mr Johansen be allowed to provide comments on any technical issue relating to the claimed invention that might come up during the hearing. However, the subject on which Mr Johansen intended to speak according to the appellant's request as specified during the oral proceedings was not simply a technical issue but in fact an event in the past, namely the performance of experiments and the results obtained thereby, which had taken place at the appellant's laboratory. So the appellant's request was actually directed to hearing Mr Johansen as a witness rather than as a technical expert.

4.4 The appellant argued that the proprietor had made a statement during the opposition proceedings similar to the one which Mr Johansen was going to present in appeal. The appellant referred to the passage of the opposition division's decision in the second part of the fifth paragraph on page 8 of the decision, which reads as follows

*"... P argued that the majority of the strain produced by Chr. Hansen and tested in the laboratory produced cytochrome d, and although some trial and error might be necessary to select the suitable strains, no undue burden was left to the skilled person as the results obtained - with producing and non-producing strains - were repeatable."*



The proprietor's statement referred to in the opposition division's decision that the majority of strains produce cytochrome d had been challenged by the respondent in its response to the statement of grounds of appeal (letter of 9 September 2011). In this letter the respondent had specifically stated that "*[H]owever, none of the other strains/species tested produced cytochrome d. Notably, even the other strain of Lactococcus lactis tested, namely strain HP, did **NOT** produce cytochrome d.*"

So at the latest upon receipt of this letter, the appellant must have been aware that its statement during the opposition proceedings may not be sufficient to prove that the majority of strains lead to the required cytochrome d amount, and that thus more evidence would be required as regards the success rate obtained with these strains. Nevertheless, the appellant chose to wait until the latest possible point in time during the present appeal proceedings to offer further evidence in the form of a "witness statement".

If the witness had been allowed to speak, the respondent would have had to be given sufficient opportunity to challenge the witness statement and it would have been necessary to adjourn the oral proceedings. Therefore, the board decided not to allow the appellant's request to hear Mr Johansen, pursuant to Article 13(3) RPBA.

5. *Admittance of new auxiliary request 2*

5.1 New auxiliary request 2 was filed during the oral proceedings before the board. The appellant requested

that this request be admitted into the proceedings because it had been confronted with new case law during the oral proceedings before the board and that the filing of new auxiliary request 2 had become necessary as a reaction thereto. Furthermore the restriction of the bacterial cells to the *Lactococcus lactis* species clearly overcame the insufficiency objection raised with regard to auxiliary request 1 such that new auxiliary request 2 was clearly allowable.

- 5.2 The board does not share the appellant's view that the appellant has been confronted with "new case law". On the contrary, the requirement applied by the board that sufficient guidance must be available to enable the skilled person to obtain the claimed subject-matter without undue burden is a well-established criterion as regards sufficiency of disclosure and certainly does not constitute "new case law" (see the decisions cited in point 3.3 above). Furthermore, even if, for the sake of argument, this requirement were to be considered to be "new case law", the possibility that this "new case law" would be applied must have been apparent to the appellant at the latest upon receipt of the respondent's letter of 9 September 2011, where the respondent on page 36 explicitly referred to this requirement when quoting the Guidelines for Examination. Furthermore, this requirement was even reiterated in the board's communication of 21 December 2012 where it was stated that "*[I]t has to be discussed whether the required cytochrome d amount can be obtained with any starter culture organisms as covered by claim 1 and if not, whether the skilled person is able to select, without undue burden, those starter culture organisms that result in the required cytochrome d amount.*" So,

this allegedly "new case law" cannot have come as a surprise to the appellant.

It is also not true that due to the restriction of the bacterial cells to the *Lactococcus lactis* species, the previous insufficiency objection has been clearly overcome. More specifically, as has been set out above (point 3.1.2), the respondent's experiments prove that one out of two tested *Lactococcus lactis* strains does not have the ability to produce the required cytochrome d amount. It is thus doubtful whether due to the restriction of the cells in claim 1 to the *Lactococcus lactis* species, undue burden would no longer be required to determine appropriate *Lactococcus lactis* strains.

Finally, the parties would have had to be given an opportunity to address the question of whether an undue burden would still be required to carry out the invention underlying restricted claim 1 and, if needed, to file further evidence in this regard. The necessity for such opportunity is in fact underlined by the respondent's request to hear Mr Johansen. This is thus not only a change of the appellant's case, but it would also not have been possible to come to a final decision without adjourning the oral proceedings.

Therefore the board decided not to admit new auxiliary request 2 into the proceedings (Article 13(1) and (3) RPBA).

Auxiliary requests 2 to 5

6. *Sufficiency of disclosure*

In the same way as auxiliary request 1, each of auxiliary requests 2 to 5 contains a claim 1 in which the bacterial cell is a bacterial species selected from the group consisting of *Lactococcus* spp. and *Leuconostoc* spp. and which stipulates that the cell must contain at least 0.1 ppm on a dry matter basis of cytochrome d (see point X above). Therefore the insufficiency objection raised with regard to auxiliary request 1 equally applies to each of auxiliary requests 2 to 5. These requests are thus not allowable either.

**Order**

**For these reasons it is decided that:**

The appeal is dismissed.

The Registrar:

The Chairman:

M. Cañueto Carbajo

W. Sieber