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Datasheet for the decision of 25 July 2024

Case Number: T 0220/22 - 3.3.08

Application Number: 14761924.1

Publication Number: 3036327

IPC: C12N15/113, C12N15/115, C07K14/315, C12N15/82

Language of the proceedings: EN

Title of invention:
Genome modification using guide polynucleotide/Cas endonuclease systems and methods of use

Patent Proprietor:
PIONEER HI-BRED INTERNATIONAL, INC.

Opponent:
James Poole Limited

Headword:
Guide polynucleotide/Cas endonuclease systems/ PIONEER HI BRED

Relevant legal provisions:
EPC Art. 123(2), 54
RPBA 2020 Art. 12(4), 13(2)

Keyword:
Admittance of late-filed lines of argument - main request - (no)
Main request - added subject-matter - (yes)
Admittance of late-filed lines of argument - auxiliary request 1 - (no)
Auxiliary request 1 - Reformatio in peius (yes)
Auxiliary request 2 - novelty - (no)
Auxiliary requests 3 to 20 - Admission into the appeal proceedings (no)
Late-filed auxiliary requests 21 to 23 - Admission into the appeal proceedings (no)

Decisions cited:
G 0001/03, G 0001/99

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Case Number: T 0220/22 - 3.3.08

D E C I S I O N
of Technical Board of Appeal 3.3.08
of 25 July 2024

Appellant: (Opponent)	James Poole Limited One Southampton Row London WC1B 5HA (GB)
Representative:	Marshall, Cameron Carpmaels & Ransford LLP One Southampton Row London WC1B 5HA (GB)
Respondent: (Patent Proprietor)	PIONEER HI-BRED INTERNATIONAL, INC. 7100 N.W. 62nd Avenue, P.O. Box 1014 Johnston, IA 50131-1014 (US)
Representative:	Shaw, Daniel Reinhard, Carsten J A Kemp LLP 80 Turnmill Street London EC1M 5QU (GB)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 16 November 2021 concerning maintenance of the European Patent No. 3036327 in amended form**

Composition of the Board:

Chairwoman	R. Morawetz
Members:	D. Pilat
	D. Rogers

Summary of Facts and Submissions

I. European patent No. 3 036 327 is based on European patent application No. 14 761 924.1, originally filed as an international application published as WO 2015/026885. It claimed priority from US 61/868,706 (P1), filed on 22 August 2013, US 61/882,532 (P2), filed on 25 September 2013, US 61/937,045 (P3), filed on 7 February 2014, US 61/953,090 (P4), filed on 14 March 2014, US 62/023,239 (P5), filed on 11 July 2014.

II. The patent was opposed on the grounds of Article 100(a) in conjunction with Articles 54 and 56 EPC and of Article 100 (b) and (c) EPC.

III. The opponent (appellant) lodged an appeal against the decision of the opposition division to maintain the patent on the basis of auxiliary request 3 filed during oral proceedings on 12 October 2021.

IV. The patent proprietor (respondent) replied to the statement of grounds of appeal and submitted a main request, which was identical to auxiliary request 3 upheld by the opposition division, and a First to Twentieth auxiliary request (hereinafter auxiliary request 1 to auxiliary request 20).

V. The appellant replied to respondent's reply to the grounds of appeal.

VI. In a communication under Article 15(1) RPBA, the parties were informed of the board's provisional opinion on some issues of the case.

VII. In response to the board's communication, the respondent filed three further auxiliary requests (Twenty-first to Twenty-third Auxiliary requests (hereinafter auxiliary requests 21 to 23).

VIII. The following documents are referred to in this decision:

D9: WO 2014/144761
D9a: US 61/838,148
D9b: US 61/921,007

IX. Claims 8, 12, 14, 16 and 17 of the **main request** read as follows:

"8. A method for modifying a target site in the genome of a cell, the method comprising providing
(a) a guide polynucleotide to a cell having a Cas endonuclease; or
(b) a guide polynucleotide and a Cas endonuclease to a cell,
wherein the guide polynucleotide is:
(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or
(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA),
wherein said guide polynucleotide and Cas

endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site, and

wherein said method is an *ex vivo* method."

"12. The method of claim 11, wherein the cell is a plant cell."

"14. A method for introducing a polynucleotide of interest into a target site in the genome of a cell, the method comprising:

a) providing a guide polynucleotide, a donor DNA and a Cas endonuclease to a cell, wherein the guide polynucleotide is:

(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or

(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA), and

wherein said guide polynucleotide and Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site;

b) contacting the cell of (a) with a donor DNA comprising a polynucleotide of interest; and,

c) identifying at least one cell from (b) comprising in its genome the polynucleotide of interest integrated at said target site,

wherein said method is an *ex vivo* method."

"16. A method for modifying a target site in the genome of a cell, the method comprising:

a) providing to a cell a crNucleotide, a first recombinant DNA construct capable of expressing a tracrRNA, and a second recombinant DNA capable of expressing a Cas endonuclease, wherein said crNucleotide is a deoxyribonucleotide sequence or a combination of a deoxyribonucleotide and ribonucleotide sequence, wherein said crNucleotide, said tracrRNA and said Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site; and,

b) identifying at least one cell that has a modification at said target site, wherein the modification is selected from the group consisting of (i) a replacement of at least one nucleotide, (ii) a deletion of at least one nucleotide, (iii) an insertion of at least one nucleotide, and (iv) any combination of (i) - (iii),

wherein said method is an *ex vivo* method."

"17. A method for editing a nucleotide sequence in the genome of a cell, the method comprising introducing a guide polynucleotide, a polynucleotide modification template and at least one Cas endonuclease into a cell, wherein the guide polynucleotide is:

(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or

(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of

deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA),

wherein the Cas endonuclease introduces a double-strand break at a target site in the genome of said cell, wherein said polynucleotide modification template comprises at least one nucleotide modification of said nucleotide sequence, and

wherein said method is an *ex vivo* method."

X. The arguments of the parties relevant to the decision are dealt with in detail in the Reasons for the decision, below.

XI. The final requests of the parties, in so far as relevant to the present decision, were:

XII. The appellant requested that the decision under appeal be set aside, and the patent be revoked, and that the principle of *reformatio in peius* not be violated. In addition, the appellant requested that auxiliary requests 1 to 23 not be admitted into the proceedings.

XIII. The respondent requested that the appeal be dismissed and the patent be maintained upon the basis of its main request (the patent as maintained by the opposition division). Alternatively, the respondent requested that the patent be maintained upon the basis of one of auxiliary requests 1 to 23.

Reasons for the Decision

Main request

Admittance and consideration of new lines of arguments presented by the respondent during oral proceedings regarding the "ex-vivo" disclaimer (Article 13(2) RPBA)

1. During oral proceedings and for the first time on appeal, the respondent invoked the EPO Guidelines G-VI 6.1.3 specifying how diagnostic uses pursuant to Article 54(5) EPC could be formulated. A claim defining a diagnostic use with an "*ex vivo*" disclaimer did not fall under the scope of Article 53(c) EPC, and fulfilled the requirements of clarity and conciseness of Article 84 EPC. The arguments concerning the term "*ex vivo*" in the method of claim 8 also applied to the methods in claims 14, 16 and 17 which have the same disclaimer.

2. Essentially, the respondent submitted that claim 8 relates to a method for modifying a target site in the genome of a cell, but not of a plant or of a whole organism. The method steps (a) or (b), as well as page 2, line 5 and page 3, lines 2 to 4 of the patent application confirm this finding. Since the method of claim 8 was carried out on cells, but not on plants, the "*ex vivo*" disclaimer was limited to methods practised on the human or animal body, disclaiming only what was necessary for non-technical reasons.
In any event, a disclaimer that removes more than necessary to restore novelty would not contradict the spirit of G 1/03, if it were required to satisfy Article 84 EPC and it did not lead to an arbitrary

reshaping of the claims (see decision T 2130/11, point 2.10). The same principle must apply to disclaiming subject-matter excluded from patentability for non-technical reasons. The term "*ex vivo*" has also a clear basis in page 2, lines 2 to 5 of the patent application, referring to a cell "or" organism, in accordance with G 2/10 referring to disclosed disclaimers (headnote 1a). In the alternative, the "*ex vivo*" disclaimer in the method of claim 8 would serve to exclude methods comprising steps of crossing and selecting plants excluded under Article 53(b) EPC.

3. According to the respondent, the more detailed arguments regarding G 1/03 and the reliance on G 2/10 and the Guidelines did not constitute an amendment of their appeal case. Instead, these arguments merely elaborated on the "*ex vivo*" disclaimer's compliance with Article 123(2) EPC.

4. The board finds no reference to the arguments presented during the oral proceedings in the respondent's written submissions in the appeal proceedings. The respondent made no distinction between "cell" and "organism" in relation to the term "*ex vivo*" and made no reference to page 2 or 3 of the patent application in its written submission. There was no indication that the disclaimer intended to exclude subject-matter from patentability under Article 53(b) EPC, and/or that it was a disclosed disclaimer in accordance with G 2/10, and/or that it was an undisclosed disclaimer within the spirit of G 1/03 in accordance with decision T 2310/11. Consequently, the respondent's arguments submitted during oral proceedings as to why the "*ex vivo*" disclaimer complied with Article 123(2) EPC could not be construed to be mere developments of arguments already presented in the respondent's reply to the

statement of grounds of appeal. The new arguments therefore constitute an amendment to the respondent's appeal case made after notification of a communication under Article 15(1) RPBA.

5. The consideration of these arguments is therefore subject to the provisions of Article 13(2) RPBA and requires that exceptional circumstances exist and that these are justified by cogent reasons by the respondent.

6. The respondent did not argue that any exceptional circumstances existed.

7. The board observes that the "*ex vivo*" disclaimer had already been objected under Article 123(2) EPC during opposition proceedings (decision under appeal, point 9.2) and the objection was maintained by the appellant in its statement of grounds of appeal. Thus, the respondent's counter-arguments, which were presented for the first time during oral proceedings in appeal, could and should have been provided earlier, e.g. with the reply to the grounds of appeal. The board therefore decided not to admit these new arguments into the appeal proceedings (Article 13(2) RPBA).

Main request
Article 123(2) EPC - ex vivo limitation - claims 8, 14, 16 and 17

8. In the decision under appeal, the opposition division held that while the method of claim 8 is directed to modifying the genome of a cell, it is not limited to cells as the cells may be part of an organism as detailed in paragraphs [0008] and [0280] of the patent. The "*ex vivo*" limitation introduced in claims 8, 14, 16

and 17 of the then auxiliary request 3 - now main request - was held to be a disclaimer in accordance with G 1/03 and G 2/03 and thus allowable.

9. In writing, the respondent submitted that the term "*ex vivo*" in claims 8, 14, 16 and 17 of the main request was a disclaimer for disclaiming subject-matter excluded from patentability for non-technical reasons in accordance with G 1/03 and G 2/03 and thus allowable. It excluded methods for treatment of the human or animal body by surgery or therapy and diagnostic methods practised on the human or animal body under Article 53(c) EPC. It was a legitimate reaction to an issue raised late in the opposition proceedings.

10. It is allowable to disclaim subject-matter which is excluded from patentability for non-technical reasons under Articles 52 to 57 EPC in accordance with the principles established for an undisclosed "disclaimer" in G 1/03 and G 2/03, confirmed in G 1/16 (OJ EPO 2018, 70, Reasons 43). However, G 1/03 and G 2/03 also stipulates that an undisclosed disclaimer should not remove more than is necessary to disclaim subject-matter excluded from patentability for non-technical reasons.

11. In agreement with the appellant the board considers that claims 8, 14, 16 and 17 exclude more than is necessary, contrary to G 1/03, as they disclaim methods performed directly on whole living plants, which are not excluded under Article 53(c) EPC (cf. claim 12). Thus, at least claims 8, 14, 16 and 17 of the main request contravene Article 123(2) EPC.

Admittance and consideration of new lines of arguments presented by the respondent during oral proceedings regarding auxiliary request 1 - (Article 13(2) RPBA)

12. During oral proceedings and for the first time on appeal, the respondent submitted that claim 1, a product claim, dominates and that, as a result, the overall scope of protection covered methods that were broader than the scope of protection conferred by the method of claim 8. In view of the scope of protection conferred by claim 1, the appellant was not placed in a worse situation than if it had not appealed (decision G 1/99, headnote and Reasons 14). The respondent held that replacing a disclaimer with a very similar alternative disclaimer constituted a legitimate response to mitigate, for reason of equity, the consequences of errors of judgement made by the opposition division. Reference was made to decisions T 1803/09, headnotes, T 1845/16, Reasons 2.3.

13. In agreement with the appellant, the board finds no reference in the written submissions of the respondent in the appeal proceedings to the arguments presented during the oral proceedings. In its response to the grounds of appeal, the respondent made no reference whatsoever to the scope of protection conferred by auxiliary request 1. In particular, no reasons were given as to why auxiliary request 1 would not violate the prohibition of *reformatio in peius*.

14. The new arguments therefore constitute an amendment to the respondent's appeal case made after notification of a communication under Article 15(1) RPBA and their consideration is therefore subject to the provisions of Article 13(2) RPBA.

15. The respondent has not asserted that any exceptional circumstances existed, nor are any such circumstances apparent to the board. The board observes that the appellant already noted in its grounds of appeal that the respondent, not having filed an appeal, was primarily limited to defending the patent in the form in which it was upheld, or to amending those claims in an appropriate and necessary way, but without breaching the appellant's protection against *reformatio in peius*. In response to the respondent's submission of auxiliary request 1, under cover of a letter dated 19 October 2022, the appellant then observed that auxiliary request 1 broadens the scope of the upheld claims, in breach of the appellant's protection against *reformatio in peius*.

16. The respondent could and should therefore have explained why auxiliary request 1 does not infringe the prohibition of *reformatio in peius* already when it filed auxiliary request 1 or at the latest in response to the appellant's letter dated 19 October 2022.

17. The board therefore decided not to admit the respondent's new arguments into the appeal proceedings (Article 13(2) RPBA).

Admittance and consideration of auxiliary request 1
Article 12(4) RPBA

18. Auxiliary request 1 corresponds to the main request, except that in claims 8, 14, 16 and 17 the term "*ex vivo*" was replaced by the expression "*not a method for treatment of the human or animal body by surgery or therapy*".

19. Pursuant to the non-exhaustive list of criteria in Article 12(4) RPBA, the boards are to exercise their discretion in view of, *inter alia*, the need for procedural economy. It is well established in the case law of the Boards of Appeal that admittance of new requests which do not overcome the objections raised or which raise new issues or lead to new objections would be detrimental to procedural economy.

20. In accordance with the principle of prohibition of *reformatio in peius*, in the circumstances of the present case, the respondent is primarily restricted to defending the patent as maintained by the opposition division (see decisions G 9/92 and G 4/93, both OJ EPO 1994, 875, headnote II). The respondent is accordingly limited to propose amendments occasioned by the appeal, but without breaching the opponent-appellant's protection against *reformatio in peius* (Case law of the Boards of Appeal of the European Patent Office 10th edition 2022, V.A.3.1, V.A.3.1.5).

21. Any set of claims which is broader in scope than the set of claims as maintained by the opposition division (current main request) can only be admitted in exceptional circumstances and following the principles developed in G 1/99 (OJ EPO 2001, 381, Reasons 15; see also decision T 111/10, Reasons 4.2 and 4.3).

22. Replacement of the term "*ex vivo*" in claims 8, 14, 16 and 17 by "*not a method for treatment of the human or animal body by surgery or therapy*" reintroduces and covers methods performed directly on whole plants excluded in the request upheld by the opposition division (i.e. *in vivo* methods performed on plants) and would therefore worsen the legal position of the

appellant contrary to the prohibition of *reformatio in peius*.

23. Since deleting the method claims 8, 14, 16 and 17 would prevent the patent from being revoked, the amendments introduced in these claims, which extend the scope of protection beyond that upheld, cannot be seen as an exceptional possibility for amendment provided for in G 1/99 (supra). The amendments introduced in claims 8, 14, 16 and 17 are therefore contrary to the principle of prohibition of *reformatio in peius*.

24. In view of the above considerations, the board, exercising its discretion pursuant to Article 12(4) RPBA, decided not to admit auxiliary request 1 into the appeal proceedings.

Admittance and consideration of auxiliary request 2
Article 12(4) RPBA

25. The board sees no need to discuss the admission of this auxiliary request into the appeal proceedings as it lacks novelty (see below).

Novelty (Article 54 EPC)

Claim 1 of auxiliary request 2 reads as follows:

"1. A guide polynucleotide comprising:
(i) a first nucleotide sequence domain that is complementary to a nucleotide sequence in a target DNA; and,
(ii) a second nucleotide sequence domain that interacts with a Cas endonuclease,
wherein the first nucleotide sequence domain is

composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA) and the second nucleotide sequence domain is composed of ribonucleic acids (RNA)".

26. It was undisputed that the subject-matter of claim 1 of auxiliary request 2 cannot benefit from the first three priority dates because none of the applications P1 to P3 discloses the inclusion of DNA nucleotides in the guide sequence.

27. Document D9 discloses synthetic guide nucleic acids in which "*one or more of the nucleotides is a deoxyribonucleic acid*" (page 2, lines 18 to 22) and embodiments in which 17 to 20 nucleotides which recognise the target sequence may be "partially or wholly DNA" (page 5, lines 26 to 33), or in which the crRNA "*includes one or more deoxyribonucleotides*" (page 7, lines 6 to 19 and pages 28 to 31). A guide sequence having the same DNA/RNA arrangement as in claim 1 of auxiliary request 2 is shown in Figure 4 of document D9.

28. That document D9 is entitled to priority based on documents D9a or D9b and thus prior art within the meaning of Article 54(3) EPC was not contested by the respondent.

29. The respondent, in agreement with the decision under appeal, considered however that document D9 was a non-enabling disclosure, since it only expressed a desire to include modified nucleotides into a DNA-containing guide polynucleotide, but failed to provide experimental evidence showing that the "guide" polynucleotides were functional.

30. The board notes that claim 1 is a product claim that comprises a DNA/RNA duplex. Such a complex is also shown in Figure 4 of document D9. The skilled person knows how to practise the technical teaching of document D9 and synthesise a DNA strand and a RNA strand, so as to allow formation of a duplex. Although claim 1 is structurally defined, the term "guide" polynucleotide further implies that it must also be capable of forming a complex with a Cas endonuclease. However, claim 1 does not require that said guide polynucleotide causes a double strand break at the target site.

31. Although the state of the art shows that Cas endonucleases have evolved to function with guide polynucleotides containing exclusively RNA, there are no serious doubts substantiated by verifiable facts as to why the DNA-containing guide polynucleotides, explicitly disclosed in document D9 (in Figure 4), should not be capable of forming a complex with a Cas endonuclease. On the contrary, the respondent's own experiments using DNA-containing guide polynucleotide refutes this assertion and demonstrates that the teaching of a DNA-containing guide polynucleotide in document D9, which also falls under the definition in claim 1, is enabling. Even if the respondent has demonstrated that a DNA-containing guide polynucleotide actually works, the claimed subject-matter was first disclosed in document D9. The board cannot identify any reason why the skilled person would be prevented from synthesising and obtaining a DNA-containing guide polynucleotide, as shown for the DNA/RNA duplex in Figure 4 of document D9, as there is no evidence that crucial technical information was missing from

document D9 and that this missing information was only identified in the patent application as filed.

32. The subject-matter of claim 1 of auxiliary request 2 is therefore not novel over document D9.

Admittance and consideration of auxiliary requests 3 to 18 - Article 12(4) RPBA

33. Auxiliary requests 3 to 8, 10, 12, 14 and 16 were newly filed on appeal. As regards auxiliary requests 9, 11, 13, 15, 17 and 18, the respondent submitted that they were the same as requests submitted ahead of the oral proceedings in opposition proceedings but did not demonstrate that these requests were admissibly raised and maintained in opposition proceedings (Article 12(4) RPBA). Accordingly, admittance of auxiliary requests 3 to 18 is at the discretion of the board.

34. Each of auxiliary requests 3 to 12, 17 and 18 comprises at least one amended method claim corresponding to one of claims 8, 11, 16 and 17 of the main request, in which the term "*ex vivo*" was introduced. Accordingly, these requests would not overcome the added matter issue of the main request. This was set out in the board's communication pursuant to Article 15(1) RPBA and was not contested by the respondent.

35. In auxiliary requests 13 to 16 the method claims corresponding to independent claims 8, 14, 16 and 17 as upheld in the main request, which encompassed *ex vivo* methods, were amended to delete the "*ex vivo*" limitation. The amended method claims of auxiliary requests 13 to 16 lead to the reintroduction of *in vivo* methods that were excluded in the method claims of the auxiliary request as upheld by the opposition division.

Although the method claims are limited to plant cells, these claims reinstate *in vivo* methods carried out in plants, which were previously excluded (e.g. claims 7, 11, 13, 14 in auxiliary request 13 and auxiliary request 14 or claims 4, 8, 10, 11 in auxiliary request 15 and auxiliary request 16). Accordingly, these requests would worsen the legal position of the appellant contrary to the prohibition of *reformatio in peius*. This was also set out in the board's communication pursuant to Article 15(1) RPBA and not contested by the respondent.

36. In view of the above considerations, the board, exercising its discretion pursuant to Article 12(4) RPBA, decided not to admit auxiliary requests 3 to 18 into the appeal proceedings.

Admittance and consideration of auxiliary requests 19 and 20 Article 12(4) RPBA

37. The decision under appeal is not based on auxiliary requests 19 and 20. The respondent submitted that these auxiliary requests were the same as auxiliary requests submitted ahead of the oral proceedings but did not demonstrate that these requests were admissibly raised and maintained in opposition proceedings (Article 12(4) RPBA). Accordingly, admittance of auxiliary requests 19 and 20 was at the discretion of the board.

38. Claim 1 of auxiliary request 19 reads as follows:

"1. A method for modifying a target site in the genome of a plant cell, the method comprising providing a guide polynucleotide to a plant cell having a Cas endonuclease, wherein said guide polynucleotide comprises DNA, wherein said guide polynucleotide and

Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site."

39. Claim 1 of auxiliary request 20 reads as follows:

"1. A method for modifying a target site in the genome of a plant cell, the method comprising providing a guide polynucleotide to a plant cell having a Cas endonuclease, wherein the guide polynucleotide is:

(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or

(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA), and

wherein said guide polynucleotide and Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site."

40. The board notes that the method of claim 1 of auxiliary requests 19 and 20 correspond to independent granted claim 8(a) and to claim 8 as maintained in the main request, respectively. Compared to claim 8, claim 1 was, *inter alia*, amended to remove the limitation "*ex vivo*" and restricted to a plant cell.

41. The respondent submitted that no issue regarding the prohibition of *reformatio in peius* arose because

claim 1 was limited to the plant context.

42. The board agrees with the respondent that claim 1 of auxiliary requests 19 and 20, being limited to plant cells, is narrower than claim 8 of the main request as regards the organism. However, in agreement with the appellant, the board considers that auxiliary requests 19 and 20 reinstate *in vivo* methods carried out on whole plants that were excluded in the claims of the request upheld by the opposition division. For that reason, the board considers that these requests would violate the principle of the prohibition of *reformatio in peius*.

43. Therefore, the board decided not to admit auxiliary requests 19 and 20 into the proceedings.

Admittance and consideration of auxiliary requests 21 to 23
Article 13(2) RPBA

44. In response to the board's notification of the summons to oral proceedings under Article 15(1) RPBA, the respondent submitted new auxiliary requests 21 to 23 under cover of a letter dated 19 July 2025.

45. Claim 1 of auxiliary request 21 reads as follows:

"1. A guide polynucleotide/Cas endonuclease complex wherein the guide polynucleotide comprises:

(i) a first nucleotide sequence domain that is complementary to a nucleotide sequence in a target DNA; and,

(ii) a second nucleotide sequence domain that interacts with a Cas endonuclease,

wherein the first nucleotide sequence domain is

composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA) and the second nucleotide sequence domain is composed of ribonucleic acids (RNA), and

wherein said guide polynucleotide and Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site."

46. Claim 1 of auxiliary request 22 reads as follows:

"1. A method for modifying a target site in the genome of a cell, the method comprising providing

(a) a guide polynucleotide to a cell having a Cas endonuclease; or

(b) a guide polynucleotide and a Cas endonuclease to a cell,

wherein the guide polynucleotide is:

(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or

(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA),

wherein said guide polynucleotide and Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site, and

wherein said method is an *ex vivo* method."

47. Claim 1 of auxiliary request 23 reads as follows:

"1. A method for modifying a target site in the genome of a cell, the method comprising providing

(a) a guide polynucleotide to a cell having a Cas endonuclease; or

(b) a guide polynucleotide and a Cas endonuclease to a cell, wherein the guide polynucleotide is:

(i) a single guide polynucleotide comprising a variable targeting domain and a cas endonuclease recognition domain, wherein the variable targeting domain is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA); or

(ii) a duplex guide polynucleotide comprising a crNucleotide molecule and a tracrNucleotide molecule, wherein the crNucleotide molecule is composed of deoxyribonucleic acids (DNA) or of a combination of deoxyribonucleic acids (DNA) and ribonucleic acids (RNA),

wherein said guide polynucleotide and Cas endonuclease are capable of forming a complex that enables the Cas endonuclease to introduce a double strand break at said target site, and

wherein said method is not a method for treatment of the human or animal body by surgery or therapy."

48. These requests constitute an amendment of the respondent's case within the meaning of Article 13(2) RPBA 2020 whose admittance is at the discretion of the board.

49. The respondent essentially argued that auxiliary requests 21 to 23 intended to address the issues raised in the board's communication under Article 15(1) RPBA.

Firstly, the board's communication came as a surprise, since its opinion on the disclaimer introduced during oral proceedings in opposition proceedings and the lack of novelty of claim 1 of auxiliary request 2 were contrary to the decision of the opposition division. Secondly, the amendments in auxiliary requests 21 to 23 consisted of a simple deletion of claims that were present in claim requests already on file (i.e. main request and auxiliary request 1). Therefore, they were consistent with the principle of procedural economy. They were not of a complex nature requiring additional analysis and should surprise neither the board nor the appellant.

50. The fact that the board, in its preliminary opinion, deviated from the decision under appeal and agreed with the appellant's objections as regards the undisclosed disclaimer and the lack of novelty was a possible outcome on appeal and was therefore not surprising. The board's preliminary opinion did not contain any new, surprising facts that could justify the respondent's late submission of its fall-back positions.

51. The respondent could and should therefore have submitted auxiliary requests 21 to 23 in response to the appellant's statement of grounds of appeal. There was no reason to wait for the board to issue an unfavourable opinion before submitting these auxiliary requests. Hence, the board cannot find any exceptional circumstances or cogent reasons within the meaning of Article 13(2) RPBA why the proposed amendments could not have been presented earlier.

52. Hence, the board decided not to admit any of auxiliary requests 21 to 23 into the appeal proceedings (Article 13(2) RPBA).

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairwoman:

C. Rodríguez Rodríguez R. Morawetz

Decision electronically authenticated