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Datasheet for the decision of 23 February 2022

Case Number: T 2362/19 - 3.3.08

Application Number: 12815750.0

Publication Number: 2791163

IPC: C12M1/04, A61K39/12, A61K39/245, C12N5/0783, A61K39/235, A61K35/17

Language of the proceedings: EN

Title of invention:
PROCESS FOR T CELL EXPANSION

Patent Proprietor:
AlloVir, Inc.
Baylor College of Medicine

Opponent:
Strawman Limited

Headword:
T cell expansion/ALLOVIR

Relevant legal provisions:
EPC Art. 54, 56, 83, 84, 123(2)
RPBA 2020 Art. 13(2)

Keyword:
Main request - admitted - (yes)
Added matter - (no)
Clarity - (yes)
Sufficiency of disclosure - (yes)
Novelty - (yes)
Inventive step - (yes)

Decisions cited:
G 0001/93, T 0056/87, T 1333/05, T 2046/14

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 2362/19 - 3.3.08

D E C I S I O N
of Technical Board of Appeal 3.3.08
of 23 February 2022

Appellant: (Opponent)	Strawman Limited Orchard Lea Horns Lane Combe, Witney Oxfordshire OX29 8NH (GB)
Representative:	Salisbury, Frances Gregory, Adam Patrick Mewburn Ellis LLP Aurora Building Counterslip Bristol BS1 6BX (GB)
Respondents: (Patent Proprietors)	AlloVir, Inc. Kirby Grove 2925 Richmond Ave., Suite 1200 Houston, TX 77098 (US)
	Baylor College of Medicine One Baylor Plaza Houston, TX 77030 (US)
Representative:	Murphy, Colm Cooley (UK) LLP 22 Bishopsgate London EC2N 4BQ (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 21 June 2019 rejecting the opposition filed against European patent No. 2791163 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chair	B. Stolz
Members:	M. R. Vega Laso
	R. Winkelhofer

Summary of Facts and Submissions

I. European patent No. 2 791 163 with the title "Process for T cell expansion" was granted from European application No. 12815750.0 which had been filed under the Patent Cooperation Treaty and published as WO 2013/088147 A1 (in the following "the application as filed").

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

III. In a decision posted on 21 June 2019, an opposition division found that none of the grounds for opposition of Article 100 EPC prejudiced the maintenance of the patent as granted. Consequently, the opposition was rejected (Article 101(2), second sentence EPC).

IV. The opponent (appellant) filed an appeal against this decision.

V. The patent proprietors (respondents) replied to the statement of grounds and submitted new evidence.

VI. Pursuant to their respective subsidiary requests, the parties were summoned to oral proceedings before the board.

VII. In a communication, the board expressed a provisional opinion on the issues of inventive step and sufficiency of disclosure.

VIII. During the oral proceedings, which were held on 23 February 2022, the respondents replaced the previous main request by a new main request.

IX. Claim 1 of the new main request reads:

"1. An *in vitro* expansion process for rapid expansion of antigen specific T cells, comprising the step of culturing in a gas permeable vessel a population of PBMCs with the addition of an antigen selected from the group consisting of a reconstituted peptide and a reconstituted peptide mix for a target antigen(s);
wherein the peptide or peptide mix are reconstituted by adding water for injection (WFI)
wherein the peptides contain at least 2 but not more than 50 amino acids;
wherein the culturing is performed in the presence of at least one exogenous cytokine, selected from the group comprising IL-4, IL-7, IL-15, and the process is performed without the addition of exogenous IL-2; and
wherein media and nutrients are not added or changed after initiation of the expansion process, and wherein the expansion provides the desired population of T cells in 14 days or less."

Claims 2 to 14, which are identical to the corresponding claims of the patent as granted, refer to specific embodiments of the process of claim 1.

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

(1): WO 2011/028531, published on 10 March 2011;

(2): U. Gerdemann *et al.*, May 2011, Journal of Visualized Experiments, 51: e2736, pages 1 to 6;

(4): WO 2009/053109 A1, published on 30 April 2009;

(6): J. F. Vera *et al.*, April 2010, J. Immunother., Vol. 33, No. 3, pages 305 to 315;

(8): U. Gerdemann *et al.*, December 2011, Mol. Therapy, Vol. 19, No. 12, pages 2258 to 2268;

(9): A. C. Hobeika *et al.*, 2008, Cytotherapy, Vol. 10, No. 3, pages 289 to 302;

(12): E. Cha *et al.*, July 2010, Breast Cancer Res. Treat., Vol. 122, No. 2, pages 359 to 369;

(13): I. V. Redchenko and A. B. Rickinson, January 1999, Journal of Virology, Vol. 73, No. 1, pages 334 to 342;

(15): E. Reyes *et al.*, 1999, British Journal of Cancer, Vol. 80, No. ½, pages 229 to 235;

(16): U. Gerdemann *et al.*, August 2012, Mol. Therapy, Vol. 20, No. 8, pages 1622 to 1632;

(17): C. Rooney and A. Leen, 2012, Molecular Therapy – Nucleic Acids, Vol. 1, e55, pages 1 to 4;

(18): J. M. Keirnan *et al.*, July 2012, JPT PepMix™ Peptide Pools, Application Note, pages 1 and 2; and

(24): J. Dunne *et al.*, 2001, The Journal of Immunology, Vol. 176, No. 6, pages 3128 to 3138.

XI. The submissions made by the appellant, as far as they are relevant to the present decision, were essentially as follows:

Admittance and consideration of the set of claims of the new main request in the proceedings

The set of claims of new main request was filed at a very late stage of the appeal proceedings and should not be admitted into the proceedings. Article 13(2) of the Rules of Procedure of the Boards of Appeal (RPBA) was applicable. There were no exceptional circumstances which justified the late filing of the amended claims. Admittance of the new request would be detrimental to procedural economy because the amendments introduced into the claims gave rise to new issues under Articles 123(2) and 84 EPC. The request was not *prima facie* allowable.

Article 123(2) EPC – added matter

The subject-matter of amended claim 1 extended beyond the content of the application as filed. Reconstitution of a peptide in water for injection was disclosed in the passage on page 17, line 35 of the application as filed in the context of an example, and could not be considered separately from the other features disclosed in the same example. Moreover, the disclosure of water for injection as used in the examples was limited to a particular product on the market.

Article 84 EPC – clarity

Amended claim 1 lacked clarity because the term "*water for injection*" had no clear meaning in the context of the claimed method.

Article 83 EPC – sufficiency of disclosure

The application did not sufficiently disclose the claimed invention. There was no one single example in the application demonstrating that IL-4, IL-7 or IL-15 alone resulted in the desired population of cells. Figure 6 of document (1) demonstrated that IL-7 alone resulted in significantly lower CTL stimulation than IL-4 alone or in combination with IL-7.

Article 87 EPC – priority

The subject-matter of amended claim 1 was not disclosed in the application as filed. The claims of the main request did not relate to the same invention as disclosed in the priority document.

Article 56 EPC

The opposition division had been wrong to conclude that the claims involved an inventive step. The process of claim 1 corresponded to step (ii) of document (2) (referred to as "T cell stimulation") because at the end of this step the desired population of T cells (i.e. a population containing some antigen specific T cells) was obtained. The only difference between the claimed method and that of document (2) was that in the latter antigen presenting cells were used for stimulation, while the claimed method used a reconstitute peptide or peptide mix for a target antigen.

The opposition division had formulated the problem to be solved as the provision of a more stable and robust process to provide antigen-specific T cells. However, since no comparison data had been provided, minimization of contamination/losses could not be taken as the effect underlying the difference. Moreover, there was no evidence that the technical problem as formulated by the opposition division had been credibly solved. The objective technical problem solved by the claimed method was the provision of a more rapid method of producing antigen specific T cells. The solution was the use of free peptide(s) rather than antigen presenting cells.

The solution was obvious in view of document (9) teaching that antigen peptide could be applied in order to produce antigen specific T cells. The skilled person was motivated to modify the process of document (2) to use antigen peptide because this approach provided a rapid, simple method for generating antigen specific T cells suitable for clinical use. The ability to stimulate PBMCs with peptide directly was also disclosed in document (13).

Claim 1 specified that the culture was performed in the presence of IL-4, IL-7 and IL-15, and that IL-2 was not added. It was already known from documents (4) and (12) that IL-7 was superior to IL-2, and that this cytokine could be omitted when IL-7 was used. Similarly, document (24) showed that IL-2 could be omitted in favour of IL-15. Thus, the skilled person understood that IL-2 was optional.

The omission of IL-2 and the use of free peptide rather than antigen presenting cells appeared to be an "aggregation or juxtaposition of features" (see

Guidelines for Examination GL VII 7) because the specification did not provide any evidence of a functional interaction between these features.

XII. The relevant submissions by the respondents were essentially as follows:

Admittance and consideration of the set of claims of the new main request in the proceedings

There were exceptional circumstances that justified the admittance of the new main request into the proceedings. Claim 1 had been amended to introduce the wording "*aqueous reconstitution*" upon a suggestion of the examining division. In the decision under appeal, the amendment had been found to comply with Article 123(2) EPC. It was only at a late stage of the appeal proceedings that the board expressed a provisional adverse opinion. The term "*water for injection*" introduced into claim 1 had a basis in the application as filed.

Article 123(2) EPC – added matter

The application disclosed the use of water for injection for reconstitution of the peptide generally, and not inextricably linked to specific features of a particular example.

Article 84 EPC - clarity

The requirement of Article 84 EPC was met because the meaning of the wording "*water for injection (WFI)*" in claim 1 was clear and unambiguous.

Article 83 EPC – sufficiency of disclosure

No evidence had been presented to support the objection of lack of sufficient disclosure.

Article 87 EPC - priority

The objection to the validity of the priority, which was identical to that addressing added matter, was not justified because the priority application disclosed the use of WFI for reconstituting the peptide.

Article 54 EPC – novelty

Documents (14) and (16) did not destroy the novelty of the claimed subject-matter.

Article 56 EPC

The use of reconstituted peptides **and** the absence of medium or cytokine replenishment in an *in vitro* process for expansion of antigen specific T cells was neither taught nor suggested in any of the prior art documents on file, and certainly not in document (2) or (9) either alone or in combination. Thus, an inventive step was to be acknowledged.

XIII. The appellant requests that the decision under appeal be set aside and the patent be revoked.

XIV. The respondents request that the decision under appeal be set aside and the patent be maintained on the basis of the new main request.

Reasons for the Decision

Admittance and consideration of the set of claims of the new main request in the proceedings

1. While in examination and opposition proceedings the subject-matter of claim 1 had been considered not to extend beyond the content of the application as filed, in a communication dispatched only three weeks before the date of the oral proceedings, the board expressed an adverse view on the issue of added matter. In particular, the board expressed, for the first time, doubts that the disclosure in the application as filed of reconstitution of the peptide or peptide mix in water for injection may provide a basis for the more general concept of aqueous reconstitution (see the passage bridging pages 6 and 7 of the board's communication). The new main request filed at the oral proceedings was thus a reaction to the board's communication.

2. The circumstances underlying the current case differ from those in the decisions cited by the appellant (see decision T 1333/05 of 18 June 2008, and decision T 2046/14 of 6 February 2018). The amendments introduced into claim 1 were straightforward and clearly intended to overcome the objection of added matter. They did not take the appellant or the board by surprise, nor gave rise to any issues that the board or the appellant could not deal with without adjournment of the oral proceedings. Thus, contrary to the appellant's view the admittance of the new main request is not detrimental to procedural economy.

3. In view of the specific circumstances of the case, the new main request was to be admitted and considered in the proceedings (Article 13(2) RPBA 2020).

Rule 80 EPC

4. The amendments are occasioned by the ground for opposition of Article 100(c) EPC put forward with respect to the feature "... antigen selected from the group consisting of a aqueous reconstituted peptide and an aqueous reconstituted peptide mix for a target antigen(s)" (emphasis added) in claim 1 of the patent as granted. Rule 80 EPC is complied with.

Article 123(2) and (3) EPC – added matter

5. In the decision under appeal, the opposition division found that the objections under Article 100(c) EPC concerning particular features of claims 1 and 6 were not justified. In appeal proceedings, only the opposition division's findings concerning the feature "aqueous reconstituted" in claim 1 of the patent as granted (see section 3.2 of the decision) were contested.

6. In the present main request, the term "aqueous" has been deleted, and the feature "wherein the peptide or peptide mix are reconstituted by adding water for injection (WFI)" inserted into claim 1.

7. These amendments do not contravene Article 123(2) EPC. Pursuant to decision G 1/93 of the Enlarged Board of Appeal (OJ EPO 1994, 541), if a European patent as granted contains subject-matter which extends beyond the content of the application as filed, because a feature which limits the scope of protection conferred by the patent is not disclosed in the original application, in opposition proceedings the patent cannot be maintained unamended, as the ground for opposition under Article 100(c) EPC prejudices the

maintenance of the patent. However, the patent can be maintained in amended form, if the undisclosed feature is replaced by another feature disclosed in the application as filed without breaching Article 123(3) EPC (see G 1/93, supra, Headnote 1).

8. The use of an aqueous reconstituted peptide or peptide mix as the antigen in the claimed process is a feature limiting the scope of protection of the patent as granted. In the present claim 1, aqueous reconstitution of the peptide or peptide mix, which the board regarded as not being disclosed in the application as filed, has been replaced by a feature which specifies reconstitution by adding water for injection. This feature is disclosed on page 17, line 35 of the application as filed, and exemplified for a peptide mix in Examples 1 and 2. Contrary to appellant's view, the disclosure of WFI in the application as filed is not limited to the specific product disclosed on page 17, line 5 (Gibco, Catalogue No. A12873). The skilled person does not derive from the application as filed any technical considerations linked to the use of this particular product for peptide reconstitution in the claimed process.

9. It is undisputed that the amendments introduced into claim 1 do not result in the scope of protection conferred by the patent being extended. Thus, Article 123(2) and (3) EPC are not contravened.

Article 84 EPC - clarity

10. The appellant objected to the feature "the peptide or peptide mix are reconstituted by adding water for injection" introduced into claim 1 arguing that the

wording "for injection" is ambiguous because it may be interpreted as "for the purpose of injection".

11. The appellant's interpretation is artificial and makes no sense in the context of a claim directed to an in vitro process for expansion of antigen specific T cells. The term "water for injection (WFI)" - as specified in claim 1 - is well known in the art as a water quality standard defined in, inter alia, the European Pharmacopeia. Critical quality attributes include conductivity, total organic carbon (TOC), bacteria and bacterial endotoxin. While the use of WFI is mandatory for the most critical pharmaceutical products, including injectable drugs, WFI has many other applications. There can be no doubt that the skilled person understands the wording "water for injection" as indicating that, for reconstitution of the peptide or peptide mix, water of a particularly high purity is added.

12. Hence, the objection under Article 84 EPC fails.

Article 83 EPC – sufficiency of disclosure

13. Only the adverse findings in section 6.1.1 of the decision under appeal were contested in appeal. Pointing to Figure 6 of document (1), the appellant contended that, at least insofar as IL-7 is added as exogenous cytokine, the claimed invention is not sufficiently disclosed in the patent.

14. This argument is not persuasive. While IL-4 or a combination of IL-4 and IL-7 effect a stronger stimulation compared to IL-7, this does not mean that the claimed process cannot be performed in the presence of IL-7.

15. Hence, the requirements of Article 83 EPC are met.

Article 87 EPC - priority

16. In the decision under appeal, the opposition division acknowledged that the priority of the earlier application is validly claimed, as it found that the claims as granted relate to the same invention disclosed in the priority application.

17. Also the feature introduced into claim 1 of the present main request is disclosed in the priority application. The section "Expansion of the antigen specific T cell product" on pages 16 to 18 of the application as filed finds literal correspondence on pages 26 to 28 of the priority application. In particular, the passage on page 17, line 35 of the application as filed disclosing peptide reconstitution by adding WFI is found on page 27, line 38 of the priority application.

18. In the course of the proceedings, the appellant did no longer contest the disclosure of the introduced feature in the priority application, nor raised any objections concerning the validity of the priority. The priority of the claimed subject-matter is valid.

19. Documents (16) and (18), which were published in the priority interval, do not form part of the state of the art.

Article 54 EPC - novelty

20. Since the objection of lack of novelty was substantiated by the appellant only by reference to documents (16) and (18), there is no evidence on file

which may call into question the novelty of the claimed subject-matter. Hence, novelty is acknowledged.

Article 56 EPC – inventive step

21. In the decision under appeal, the process according to claim 1 of the patent as granted was found to involve an inventive step over documents (1) and (2), alone or in combination with any of documents (6), (8) to (15) and (17) (see section 5.1 of the decision under appeal).

22. Documents (1) and (2) relate to the same technical field and address the same technical problem as the claimed process, namely the improvement of methods for the production of antigen-specific T cells for use in immunotherapy. Document (1) is an International patent application describing methods for generating cytotoxic T-lymphocytes (CTLs) that target at least one antigen from two or more viruses (see claim 1 and the examples in section A. "Multivirus-specific CTLs" starting from paragraph [0072]), or two or more tumour antigens (claim 7 and section B. "Multiple tumor antigen-specific CTLs" starting from paragraph [0204]). The first method is described in more detail in document (2), a scientific publication authored by the inventors named in document (1).

23. In the decision under appeal, the opposition division selected document (2) as the starting point for evaluating inventive step, but stated that the same line of argument applied for document (1) teaching the same approach (see section 5.3 of the decision).

24. Document (2) describes a protocol for the generation of multivirus-specific T cells which consists of three

steps. In a first step ("DC nucleofection"), monocyte-derived dendritic cells (DCs) are subject to nucleofection with DNA plasmids encoding various viral antigens. In a second step ("T cell stimulation"), the nucleofected DCs are irradiated and transferred to a G Rex device to which peripheral blood mononuclear cells (PBMCs), IL 4, IL 7 and culture media are added. The mixed culture is incubated for 6 to 7 days. Finally, in a third step ("T cell expansion") viable cells are counted and, depending on the count, fresh media and cytokines IL 4 and IL 7 are replenished. Alternatively, a part of the culture is transferred to a new G Rex device, and both devices are fed with fresh medium and cytokines and incubated for an additional 4 to 6 days until sufficient cells have been expanded.

25. In the decision under appeal, the opposition division held that, irrespective of the name given to the individual steps in document (2), the only meaningful interpretation of this document was to read the second and third step in combination as being equivalent to the expansion process according to claim 1 of the patent at issue (see section 5.2.1, sentence bridging pages 5 and 6 of the decision).

26. The appellant contested this interpretation arguing that only the second step of the method of document (2) corresponded to the claimed process, because at the end of the second step the desired population of T cells (i.e. a population containing "some" antigen specific cells) was obtained. The appellant regarded the third step of the method of document (2) - in the statement of grounds of appeal erroneously designated step "(ii)" – as an optional step that "... could be performed subsequently to the steps of the method of

claim 1, thereby providing further expansion of the desired population of antigen specific T cells,...".

27. The board disagrees. According to the established jurisprudence of the Boards of Appeal, the technical disclosure in a prior art document must be considered as a whole (see, e.g., decision T 56/87, OJ EPO 1990, 188). Individual sections of a document cannot be considered in isolation from the others, but must be seen in their overall context.

28. In the current case, there is no indication whatsoever in document (2) that the first and the third step of the method described therein are optional. Thus, contrary to appellant's view the technical content of document (2) is not restricted to the second step of the method, because without the benefit of hindsight knowledge of the claimed invention, a person skilled in the art reading document (2) had no reason to disregard the other steps.

29. The opposition division found that there are two differences between the claimed expansion process and the method described in document (2), namely (i) reconstituted peptides of 2 to 50 amino acids instead of nucleofected DCs are used to stimulate the PBMCs, and (ii) media and nutrients are not added or changed after initiation of the expansion process.

30. In the board’s communication it was already outlined that, even though it is stated in document (2) that using the approach described therein multivirus-specific T cells can be prepared "in just 10 days" (see Abstract), the time required for preparing the nucleofected DCs - about 6 days - is not taken into account for the calculation. Hence, a further

difference between the two methods would be that the claimed expansion process provides the desired population of T cells in 14 days or less. This was not disputed by the appellant.

31. The technical effect associated with these differences is an increased efficiency of the process. The claimed process is less time consuming and requires less material and man- or womanpower than the process of document (2). Moreover, the risk of contamination/ losses is reduced and reproducibility increased.

32. The technical problem to be solved is thus the provision of a more efficient, stable and robust in vitro process for providing antigen-specific T cells.

33. This problem is solved by an in vitro process as claimed.

34. The board disagrees with appellant's view that, in the absence of evidence in the patent or comparative data, neither the purported technical effects can be considered to be achieved, nor the formulated technical problem credibly solved. It is immediately evident to a person skilled in the art that the claimed expansion process involves much less manipulation than the process of document (2), not only because media and nutrients are not added or changed after initiation of the expansion process, but also because the claimed process does not require DCs to be cultured, nucleofected and then transferred into the culture vessel for T cell expansion. The additional manipulation required in the process of document (2) entails a higher risk of microbial contamination. Moreover, since the claimed process does not require nucleofected DCs for stimulation, it minimises the risk

of contamination with cell populations which, upon infusion of the antigen-specific T cell preparation, could potentially induce undesirable immune responses in the patient. As these advantageous effects are entirely plausible, comparative data are not necessary to establish that the claimed process solves the problem as formulated above.

35. The opposition division was correct in concluding that, starting from the process for expansion of antigen-specific T cells described in document (2) and seeking to provide a more efficient, stable and robust process, the skilled person does not arrive at the claimed process in an obvious manner.

36. The appellant further argued that document (9) would motivate the skilled person to modify the process of document (2) to use antigen peptide.

37. Also this argument is unconvincing. It is stated in document (9) that, while peptide-stimulated cultures of T cells respond strongly to a particular CMV antigen (as shown by increased IFN-γ production), expansion with adenoviral CMV has the advantage of generating reactivity to multiple CMV epitopes and can activate both CD8 and CD4 T cell responses (see page 298, right-hand column, first paragraph). These statements do not prompt the skilled person to try to apply a protocol which is purportedly less advantageous. Moreover, contrary to the appellant's view, if the skilled person nevertheless tried to expand antigen-specific T cells by combining the teachings of document (2) with those of document (9), they would not arrive at the process of claim 1 because the process described in document (9) requires medium replacement at least once on day 3, and exogenous IL-2 addition on days 3, 7

and 10 (see section under the heading "Expansion of PBMC with CMV peptide" on page 290, right-hand column).

38. It is stated in document (13) that a process based on peptide-loaded autologous dendritic cells induces stronger and more consistent epitope-specific responses and lower background reactivity than a process using peptide alone (see Figure 2 and statements on page 337, left-hand column, first full paragraph, lines 9 and 10). Thus, the authors of document (13) considered in vitro stimulation with epitope peptide-loaded dendritic cells to be significantly more efficient than stimulation with peptide alone (see Abstract, lines 5 to 7).

39. Contrary to appellant's view, the skilled person starting from document (2) and seeking to provide a more efficient process for expansion of antigen-specific T cells, is not motivated by the statements in document (13) to combine the teachings in this document with those in document (2). Moreover, since the process described in document (13) requires the addition of exogenous IL-2 for expansion (see T-cell stimulation protocol on page 335, right-hand column, second full paragraph), a combination of the teachings of documents (2) and (13) does not result in the process of claim 1 either.

40. The appellant also cited documents (4), (12) and (24) as evidence that, at the filing date, it was already known that IL-7 or IL-15 could be used instead of IL-2. Whether or not such a teaching was known at the relevant date is, however, not decisive for assessing obviousness. The decisive question is whether the skilled person seeking to solve the technical problem

of providing a more efficient, stable and robust process would have combined the teachings of document (2) and either document (9) or document (13) with the teachings of any of documents (4), (12) and (24). As stated above, the skilled person was not prompted to combine document (2) with either document (9) or document (13). Nor was the skilled person motivated to omit IL-2, as neither document (2) or documents (9) and (13) provided any promptings to do so.

41. The appellant further contended that the omission of IL-2 and the use of a peptide or peptide mix as antigen – instead of antigen-presenting cells as in the state of the art – appeared to be an "aggregation or juxtaposition of features", each of the features solving an independent partial problem.

42. However, the process of claim differs from the state of the art not only in that it uses a peptide/peptide mix as antigen and omits IL-2, but also in that media and nutrients are not added or changed after initiation of the expansion process, a feature which was completely absent in appellant's line of argument. All these features serve to solve the same problem, namely to increase the efficiency of the process of document (2). In the absence of any promptings to combine them, the process of claim 1 cannot be considered obvious.

43. The appellant finally relied also on a combination of documents (2), (6) and (13). Document (6) describes a protocol in which PBMCs are co-cultured with a lymphoblastoid cell line harbouring the Epstein-Barr virus. None of these documents describes a process which involves the use of a peptide or peptide mix of a target antigen(s) for expanding antigen-specific

T cells. Thus, it is doubtful that a person skilled in the art could arrive at the invention by combining the teachings of these documents.

44. The reasons given above apply, mutatis mutandis, if document (1) is taken as the closest state of the art because this document describes essentially the same process as document (2).

45. Summarizing the above, the claimed process was not obvious to a person skilled in the art at the relevant date. Hence, an inventive step is acknowledged.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division with the order to maintain the patent on the basis of claims 1 to 14 of the main request as submitted during the oral proceedings before the board, and a description to be adapted.

The Registrar: On behalf of the Chair (according to Art.8(3) RPBA 2020):

L. Malécot-Grob R. Winkelhofer

Decision electronically authenticated