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**Datasheet for the decision  
of 17 December 2024**

**Case Number:** T 1554/21 - 3.3.10

**Application Number:** 17152928.2

**Publication Number:** 3238749

**IPC:** A61L17/00, A61K38/00,  
A61L31/00, A61P7/04, A61L31/04,  
A61L31/14

**Language of the proceedings:** EN

**Title of invention:**  
TISSUE PLUG

**Patent Proprietor:**  
3-D Matrix, Ltd.

**Opponent:**  
Potter Clarkson LLP

**Headword:**

**Relevant legal provisions:**  
EPC Art. 76(1), 56, 83, 123(2)  
EPC R. 103(4)(c)

**Keyword:**

Amendments - allowable (yes)

Sufficiency of disclosure - (yes)

Inventive step - (yes)

Stated non-appearance at summoned oral proceedings treated as withdrawal of request for oral proceedings

Reimbursement of appeal fee at 25% (yes)

**Decisions cited:**

T 0104/23

**Catchword:**



**Beschwerdekammern**  
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Case Number: T 1554/21 - 3.3.10

**D E C I S I O N**  
**of Technical Board of Appeal 3.3.10**  
**of 17 December 2024**

**Appellant:** Potter Clarkson LLP  
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**Representative:** Potter Clarkson  
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**Respondent:** 3-D Matrix, Ltd.  
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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
23 July 2021 concerning maintenance of the  
European Patent No. 3238749 in amended form.**

**Composition of the Board:**

**Chairman** P. Gryczka  
**Members:** A. Zellner  
F. Blumer

## **Summary of Facts and Submissions**

- I. The opponent (appellant) lodged an appeal against the decision of the opposition division to maintain the European patent No. 3 238 749 in amended form (Article 101(3) (a) EPC).
  
- II. Notice of opposition has been filed on the basis of Article 100(a) EPC for lack of novelty and lack of inventive step (Articles 54 and 56 EPC), Article 100(b) EPC for lack of sufficiency of disclosure, and Article 100(c) EPC for added subject-matter. The patent proprietor defended the patent during the opposition proceedings in amended form.
  
- III. In the appealed decision, the opposition division held that none of the grounds of opposition raised by the opponent prejudiced the maintenance of the patent in amended form. In particular, the opposition division considered the main request to meet the requirements of Rule 80 EPC, considered claims 1, 5 and 10 to 13 to meet the requirements of Articles 76(1) and 123(2) EPC and the protection conferred by claims 5 and 10 to 13 not to extend beyond that of the patent as granted (Article 123(3) EPC). The opposition division further concluded that the subject-matter of claim 1 of the main request was disclosed in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art (Article 83 EPC), that the main request met the requirements of Article 84 EPC, and that the composition according to claim 1 of the main request was novel in view of the disclosure of document D7 (Article 54 EPC). The opposition division also concluded that the subject-matter of the claims of the main request fulfilled the requirements of Article 56

EPC, because the claimed subject-matter was considered to be based on an inventive step in view of document D7 as closest prior art.

IV. The following documents are referred to:

- D1: US 2008/0032934 A1
- D2: WO 2008/039483 A2
- D3: English translation of WO 2010/041636 as filed  
(parent application)
- D7: WO 2006/116524 A1
- D14: Ellis-Behnke, R.G.; et al., "Nano hemostat solution: immediate hemostasis at the nanoscale", *Nanomedicine: Nanotechnology, Biology, and Medicine* 2 (2006) 207-215
- D15: WO 2015/136370 A2
- D16: Zhang, S., "Emerging biological materials through molecular self-assembly", *Biotechnology Advances* 20 (2002), 321-339
- D19: Zhang, S., "Spontaneous assembly of self-complementary oligopeptide to form a stable macroscopic membrane", *Proc. Natl. Acad. Sci. USA* Vol. 90, pp. 3334-3338, April 1993 Chemistry

V. In support of its appeal, the appellant argued that the opposition division erred in their decision when holding claim 10 of the main request to meet the requirements of Articles 123(2) and 76(1) EPC, when holding the claimed subject-matter to be sufficiently disclosed (Article 83 EPC) and when holding the claimed subject-matter to be based on an inventive step (Article 56 EPC).

VI. Both parties initially requested that oral proceedings be held in case their respective main requests were not

allowable (Article 116 EPC).

- VII. The board summoned the parties to attend oral proceedings (Rule 115(1) EPC) and informed them in a communication under Article 15(1) RPBA about its preliminary opinion that the main request of the respondent appeared to meet the requirements of Articles 123(2), 76(1), 83 and 56 EPC.
- VIII. The appellant informed the board thereafter of its intention not to attend the oral proceedings.
- IX. The board cancelled the oral proceedings.
- X. Claims 1, 9 and 10 of the main request (patent as maintained by the opposition division) are relevant for the present decision. These claims read as follows:
- "1. A tissue occluding composition comprising a peptide which consists of the amino acid sequence of SEQ ID NO: 2."*
- "9. The composition of any of the proceeding claims for use in a method of occluding a fluid leakage site from which excess body fluid has been removed."*
- "10. The composition for use according to claim 9 in a method of haemostasis, optionally in the treatment of: (a) haemorrhage of blood in a condition of reduced clotting function induced by addition of an anticoagulant; or (b) haemorrhage wound surface of a parenchymal organ; or (c) arterial haemorrhage; or (d) phleborrhagia."*
- XI. The appellant essentially argued as follows:

Claim 10 of the main request does neither find a basis in the application as filed, nor in the earlier application, Article 76 EPC and Article 123(2) EPC. The request is furthermore not allowable, since the patent does not disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. Finally, the main request is not allowable because the claimed composition is not based on an inventive step considering the disclosure of either of documents D1 or D7 closest prior art (Article 56 EPC). These documents disclosed similar tissue occluding compositions, which the skilled person would modify in order to solve the technical problem of providing alternative tissue occluding compositions.

XII. The respondent essentially argued as follows:

The description of the application as filed, and the earlier application provide a basis for claim 10 of the main request, in particular for the combination of features objected to by the appellant. The claimed invention is also sufficiently disclosed, and the appellant has not provided any evidence to the contrary. The disclosure of document D7, in particular the peptide RADA16, is the closest prior art. The peptides comprised in the claimed tissue occluding compositions differ from RADA16 in a number of structural features, which leads to an improvement of the claimed compositions over the prior art. The problem solved by the invention is the provision of improved compositions, and the solution provided is based on an inventive step, because the prior art does not suggest the skilled person to modify RADA 16 accordingly. The provision of the claimed compositions is also inventive in case no particular technical

effect is acknowledged, because the prior art teaches away from the solution to the technical problem of providing an alternative tissue occluding composition provided according to claim 1 of the main request. The request thus meets the requirements of Articles 76(1), 123(2), 83 and 56 EPC.

XIII. The appellant (opponent) requests that the decision under appeal be set aside and that the patent be revoked. The appellant further requests that document D19 be admitted into the proceedings.

XIV. The respondent (patent proprietor) requests that the appeal be dismissed and that the patent be maintained as maintained by the opposition division. The respondent furthermore requests that document D19 not be admitted into the proceedings.

### **Reasons for the Decision**

1. The appeal is admissible.

#### *Decision without conduct of oral proceedings*

2. Both parties requested oral proceedings under Rule 115(1) EPC. The appellant subsequently declared not to attend oral proceedings. According to settled case law this is to be considered a withdrawal of its request for oral proceedings (CLBA 10th edition 2022, Chapter III.C.4.3.2).

Since, as outlined below, the board follows the respondent's main request to dismiss the appeal, a decision at this stage can be taken without oral proceedings.



*Main request (patent as maintained by the opposition division)*

*Amendments (Article 123(2) and 76(1) EPC)*

3. The appellant argued that claim 10 of the main request was not based on the application as filed. According to the appellant, the feature "*... from which excess body fluid has been removed ...*" (independent claim 9) was new information in the context of feature "*... (c) arterial haemorrhage ...*" (claim 10, dependent on claim 9). Since the combination of these features was neither disclosed in the application as filed, nor in the earlier application in accordance with Article 76 EPC as filed, the requirements of Articles 123(2) and 76(1) EPC were not met.
  
4. The appellant's argumentation is not convincing.

Claim 10 of the main request is dependent on claim 9, which is directed to the "*(...) composition of any one of the previous claims for use in a method of occluding a fluid leakage site from which excess body fluid has been removed*". Dependent claim 10 is directed to the "*(...) composition for use according to claim 9 in a method of haemostasis, optionally in the treatment of (...) (c) arterial haemorrhage (...)*".

Paragraphs [0029] and [0035] of the application as published (EP 3 238 749 A1) (which has the same content as the application as filed), as well as paragraphs [0023] and [0029] of the earlier application under Article 76 EPC (document D3), disclose that a tissue occluding effect can be obtained with the tissue occluding agent of the invention by removing excess body fluid from body fluid leakage sites. Paragraphs [0034] and [0028] of these documents, respectively,

disclose the use of the agents comprising the tissue occluding agent for e.g. arterial hemorrhage. These passages thus provide a basis for the combination of the features of removing excess body fluid from body fluid leakage sites and arterial hemorrhage.

5. The main request thus meets the requirements of Articles 123(2) and 76(1) EPC.

*Sufficiency of disclosure (Article 83 EPC)*

6. The appellant submitted that the patent did not disclose how to remove excess fluid from a site of arterial haemorrhage such that the peptide of the invention could serve as a haemostatic agent. According to the appellant, wiping away any blood from a high-volume flow of blood, such as a site of arterial haemorrhage, with gauze would not work, because the blood would immediately be replaced with fresh blood.
7. The respondent referred to the appellant's submission during the opposition proceedings, and argued that the appellant had acknowledged that the removal of excess fluid at a wound site was an integral part of physicians' training for decades and the general practice of primary care physicians. In addition, the skilled person would have been able to follow the teaching of the application as filed, in particular with respect to the IEIK13 peptide, without any undue burden.
8. The board notes that the appellant has not provided any evidence to support its objection. It has, in particular, not been shown why a trained physician was unable to sufficiently reduce excess fluid at a wound site so that applying a composition according to claim

1 of the main request would occlude a fluid leakage site. Claim 9 of the main request does not require to "wipe away" blood from a site of arterial haemorrhage, nor does the claim limit removal of excess body fluid from a fluid leakage site to any particular method at all. The board is also not convinced that the skilled person was unable to follow any particular teaching disclosed in the application as filed, since no evidence thereof has been provided by the appellant. The appellant's argumentation is thus not convincing.

9. The main request thus meets the requirements of Article 83 EPC.

*Inventive step (Article 56 EPC)*

10. The opposition division considered the provision of a tissue occluding composition according to claim 1 of the main request to be based on an inventive step. Document D7, in particular a composition comprising RADA16 disclosed therein, was considered to be the closest prior art. In agreement with the parties, the opposition division considered the differing feature to be the nature of the self-assembling peptide IEIK13 according to claim 1 of the main request. No special technical effect was acknowledged by the opposition division, and the technical problem was seen in the provision of an alternative tissue occluding composition. The opposition division concluded that the skilled person would not have modified the protein sequence of RADA16, as disclosed in D7, to obtain IEIK13 according to claim 1 of the main request, because the teaching of document D7, as well as that of document D1, suggested not to modify RADA16 accordingly, in particular not when trying to find an

alternative peptide for a tissue occluding composition.

11. The appellant contested this finding and argued that the opposition division's limitation of their argument to the specific compound RADA16 was too narrow. According to the appellant, the entire content of document D7 had to be considered for the evaluation of inventive step, since the entire document was directed at peptides which were able to self-assemble and thus to form a gel and to occlude tissue. The appellant argued that the majority of uses disclosed in document D7 made use of the tissue occluding properties of the compositions that are formed when the peptides self-assemble. In addition to RADA16, the appellant specifically referred to EAKA8-I, EAKA16-I (lines 6 and 7 in Table 1) and to AKAEAKAEAKAE (line 25 on page 9) as suitable starting points for the assessment of inventive step. The appellant argued that these peptides were structurally closer to the claimed IEIK13 than RADA16, and thus more suitable as closest prior art. The appellant identified several differences between the claimed peptide IEIK13 and the specific peptides disclosed in D7. One of these differences was the presence of isoleucine instead of alanine. A further difference was the overall length due to either additional neutral amino acids, or to the total number of the repeating 4 amino acid units. The appellant submitted that the structural differences between IEIK13 and the specific peptides disclosed in D7, or the selection of a particular structure out of the generic formulae I to IV of D7, did not lead to any unexpected technical effect. The appellant argued that the modifications which were necessary when starting from these peptides in order to arrive at IEIK13 were obvious for the skilled person when looking for an alternative to a peptide used in a tissue occluding

composition. The provision of a tissue occluding composition according to claim 1 of the main request did thus not involve an inventive step as required by Article 56 EPC. A similar reasoning was provided when starting from document D1, peptide No. 112, *i.e.* IIIIIEIKIEIKIEIK (page 10, right-hand column), as closest prior art.

12. The respondent essentially argued that the only compound disclosed in document D7 in connection with a tissue occlusion effect was RADA16. This specific compound should thus be considered to be the closest prior art. The use of IEIK13 instead of RADA16 led to improved properties, and the technical problem was thus the provision of an improved tissue occluding composition. Even in case a technical effect was not recognised, the provision of a tissue occluding composition according to claim 1 of the main request was based on an inventive step, for the reasons given by the opposition division in the impugned decision. The respondent further argued that the prior art pointed the skilled person away from attempting to provide the claimed compositions, because it was known that the necessary structural modifications led to peptides which were not usable for the intended tissue occluding use. The respondent referred to stiffness and brittleness of certain peptides, and argued, by reference to documents D2 and D14, that these properties - which made the peptides unsuitable for the intended purpose - were caused by the presence of specific amino acids.

13. The board comes to the following conclusions:

*The contested patent*

13.1 The contested patent relates to tissue occluding compositions comprising a self-assembling peptide hydrogel as a scaffold for cell culture, and to the use of these compositions for occluding a fluid leakage site in order to prevent leakage of body fluids (see claims 1 and 9 and paragraphs [0001] and [0028] of the contested patent). Claim 1 of the main request is directed to a tissue occluding composition comprising a peptide which consists of specific amino acid sequence (SEQ ID NO: 2). This amino acid sequence is identical to the sequence IEIK13. This was undisputed.

*The closest prior art*

13.2 The parties argued starting from documents D1 and D7. These documents are very similar. They both disclose peptide comprising self-assembling materials comprising peptides for use as barrier applications, which can be used in the presence of fluids (D1: paragraphs [0008] and [0011]; D7: page 2, lines 16 to 18 and 26 to 28). Both of the documents disclose peptides of formulae I to IV (D1: see paragraph [0035], D7: see page 9, lines 10 to 17). Example 1 is also very similar in both documents. Either of the documents may thus be considered the closest prior art. The parties disagreed whether any peptide falling within any of the general formulae I-IV (see page 9 of D7) and/or any of "modulus I" to "modulus IV" (see page 12, lines 10 to 27 of D7) was the closest prior art, or rather whether a specifically disclosed peptide, such as any of those disclosed in Table 1 of D7 or in paragraph [0080] of D1, in particular RADA16-I (example 1 in both documents), would be the most suitable starting point for the evaluation of inventive step.

- 13.3 None of the two documents discloses a peptide according to claim 1 of the main request, *i.e.* the peptide IEIK13, comprised in a tissue occluding composition. The documents do not disclose the peptide as such either. Document D7 makes no reference to a peptide comprising a sequence IEIK at all. This was undisputed.
- 13.4 The most appropriate starting point for the evaluation of inventive step is a composition comprising RADA16-I, since D7 and D1 disclose an example in which this specific compound is used in connection with tissue occluding properties (see example 1, in particular lines 22 to 24 of page 59 of D7 and example 1 of D1).
- 13.5 Concerning the appellant's argumentation with respect to other peptides disclosed in documents D1 and D7, it is referred to point 14. of this decision.

*Differing features*

- 13.6 The peptide comprised in the tissue occluding composition according to claim 1, *i.e.* a peptide which consists of amino acid sequence of SEQ ID NO: 2 ("IEIK13"), consists of a sequence of three identical units of four amino acids each (IEIK, *i.e.* Ile-Glu-Ile-Lys) and a thirteenth amino acid at the C-terminal (I, *i.e.* Ile) (see paragraph [0043] and page 20, lines 46 to 50 of the contested patent). The peptide thus has three sequences of alternating neutral (I), negative (E), neutral (I), and positive (K) amino acids, followed by an additional neutral amino acid (I). The structure represents a peptide of general formula (II) according to paragraph [0039] of the contested patent, and according to page 9, line 11 of document D7.

13.7 The peptide according to example 1 of D7, *i.e.* "RADA16-I", also consists of a sequence of identical units of four amino acids each (RADA, *i.e.* Arg-Ala-Asp-Ala). It contains a different number of amino acids, *i.e.* 16 rather than 13. The peptide has four sequences of alternating positive (R), neutral (A), negative (D), and neutral (A) amino acids, and thus a comparable arrangement of charge distribution to IEIK13; *i.e.* alternating positive and negative charges interrupted by neutral amino acids. The structure of RADA16 represents, however, a peptide of general formula (III) according to paragraph [0039] of the contested patent, and according to page 9, line 12 of document D7.

13.8 As submitted by the respondent (see the submission of 31 March 2022, point 6.6 on page 24), and not disputed by the appellant, the peptide IEIK13 (claim 1 of the main request) thus differs from RADA16 (example 1 of D7 and D1) in that:

- (a) the order of amino acid types (positive, negative, neutral) is different, *i.e.* RADA16 is of type (III) whereas IEIK13 is of type (II), although the overall charge pattern is the same, and both peptides are of modulus I according to document D7 (see page 12, lines 17 to 19),
- (b) IEIK13 contains 13 rather than 16 amino acids as RADA16 does,
- (c) IEIK13 contains K (Lys) rather than R (Arg) as basic (positively charged) amino acid,
- (d) IEIK13 contains E (Glu) rather than D (Asp) as acidic (negatively charged) amino acid,
- (e) IEIK13 contains I (Ile) rather than A (Ala) as neutral amino acid.



*Technical problem*

13.9 The parties disagreed whether the technical problem is the provision of an alternative, or of an improved tissue occluding composition. The appellant argued the technical problem to be the provision of an alternative tissue occluding composition, because the data provided by the respondent did not credibly demonstrate a particular technical effect, other than compositions comprising IEIK13 having tissue occluding properties. According to the respondent, IEIK13 leads to improved properties when compared to RADA16. The respondent relies in particular on experimental data as well as on the disclosure of document D15 (see points 7.1 to 7.5 of the reply to the statement setting out the grounds of appeal).

13.10 Since, as shown below, the presence of an inventive step is acknowledged already if the technical problem is the provision of an alternative tissue occluding composition, it is not necessary to evaluate whether the differing features lead to any further technical effect.

*Solution of the technical problem*

13.11 The solution provided according to claim 1 of the main request is a tissue occluding composition comprising a peptide which consists of the amino acid sequence of SEQ ID NO: 2, i.e. peptide IEIK13, which differs from the peptide according to example 1 of D1 (and D7) in the features indicated in point 13.8 of this decision. This was not disputed. The board sees no reason to differ.

*Inventiveness of the claimed solution*

13.12 The board comes to the conclusion that it was not obvious for the skilled person to modify the peptide RADA16, as disclosed in example 1 of document D7, in order to arrive at a composition comprising the peptide IEIK13, when looking for a solution to the technical problem of providing an alternative tissue occluding composition. The reasons are as follows:

13.12.1 Document D7 does not disclose that all of the peptides according to formulae I to IV self-assemble to form  $\beta$ -sheet structures (see Table 1 of document D7, in particular lines 24 to 25 on page 11). They are thus not all functionally equivalent. This is confirmed by document D16 (see Table 1, last column, "Structure").

13.12.2 Document D7 does not disclose that all of the peptides falling under general formulae (I) to (IV) can occlude tissue, or stop bleeding. The document discloses that the various peptides can be selected for suitability for use in various methods (see page 16, line 33 to page 17, line 3). This is confirmed by document D14 (see page 214, right-hand column, lines 2 to 6; TM-3 corresponds to EAK-16).

13.12.3 According to document D14 the ability to occlude tissue depends *i.a.* on the stiffness of the gel formed by the peptides. Higher stiffness of a gel may lead to fracture, which reduces their ability to occlude tissue (see page 214, right-hand column, lines 2 to 6; TM-3 corresponds to EAK-16).

13.12.4 Stiffness - and thus a peptide gel's potential to fracture - depends on the amino acid composition (type and sequence) and on peptide length. (see document D2,

paragraphs [000452] and [000198] as well as document D1, paragraph [0037]).

- 13.12.5 High stiffness and thus higher tendency to fracture is a disadvantage for a gel which is intended to be used for occluding tissue (see document D14, page 214, last line of the left-hand column to line 9 of the right-hand column). The skilled person would thus not modify RADA16 in a way that increases stiffness.
- 13.12.6 Presence of isoleucine (as in IEIK13, claim 1) instead of alanine (as in RADA16, D7) is known to increase strength and stiffness (see document D2, paragraph [000198] and example 7, paragraph [000452]). The skilled person would thus expect to obtain a stiffer, and thus less suitable, peptide for a tissue occluding composition when replacing alanine (present in RADA16) by isoleucine (present in IEIK13).
- 13.12.7 Increase in peptide length is also known to increase stiffness, however to a smaller extent than amino acid composition. According to document D14, the performance of NHS-1 (RADA16) was identical to that of NHS-2 (RADA12), despite the presence of 16 rather than 12 amino acids (see document D14, page 214, right-hand column, lines 2 to 6 and lines 17 to 19).
- 13.12.8 Although IEIK13 is longer than RADA16, the skilled person would thus expect that the amino acid composition has a bigger influence on peptide stiffness than peptide length, and would thus lead to higher stiffness for IEIK13 compared to RADA16. This is confirmed by document D2, which discloses in example 7 that (IEIK)2 forms stiffer gels than RADA16-I. Although (IEIK)2 contains only 8 amino acids rather than 16, as RADA16 does, it contains isoleucine instead of alanine,

leading to an increase in stiffness. The document furthermore discloses that stiffness of (IEIK)2 can be further increased by making the self-assembling repetitive sequence longer, such as (IEIK)3 or (IEIK)4. The skilled person would thus expect that stiffness increases when moving from RADA16 via (IEIK)2 to (IEIK)3, which is very similar in structure to IEIK13 and only differs therefrom by the missing I (Ile) at the C-terminal end.

13.12.9 The skilled person would thus not expect that a composition comprising the peptide IEIK13 rather than RADA16 would be an alternative to the tissue occluding composition disclosed in example 1 of D7, because it would be expected to be less suitable for the intended use.

13.12.10 The appellant argued, by reference to documents D2, D7 and D14, that any negative influence by the choice of amino acid on tissue occluding properties could be compensated for by a change in peptide concentration, or an adaptation of pH.

13.12.11 It may well be that peptide concentration, pH or other factors have an additional influence on the ability of a composition to occlude tissue, but the skilled person would still not consider the use of IEIK13 as an alternative to RADA16, for the reasons given above.

13.13 In summary, the modification of the structure of the peptide RADA16 comprised in the composition of example 1 of documents D1 and D7 in order to obtain the peptide IEIK13 is not suggested when looking for an alternative tissue occluding composition. The skilled person would not have expected to obtain a composition having similar properties, in particular with respect to

stiffness of the resulting gel and its usefulness for the intended use.

14. The appellant also argued that the provision of the tissue occluding composition according to claim 1 of the main request would be obvious starting from compositions comprising other specific peptides than RADA16-I, such as the EAKA peptides EAKA8-I, EAKA16-I or AKAEAKAEAKAE (document D7 page 10, lines 9 and 8 and page 9, line 25, respectively), or the peptide IIIIIEIKIEIKIEIK (document D1, page 10, right-hand column, peptide 112). These lines of argumentation are, for the following reasons, not convincing.
  - 14.1 Each of the EAKA peptides contains the neutral amino acid alanine (A), and the skilled person would expect that replacing it with the neutral amino acid isoleucine (as in IEIK13) would lead to a stiffer protein, which would be less suitable for the intended use in a tissue occluding composition (see points 13.12.1 to 13.12.8 of this decision).
  - 14.2 Concerning the appellant's argumentation based on the peptide IIIIIEIKIEIKIEIK in document D1 as closest prior art, the board notes that - as submitted by the respondent - IEIK13 according to claim 1 of the main request differs in that only one neutral amino acid (isoleucine, I) is present at the N-terminal, rather than five according to D1, and in that it contains one additional neutral amino acid (isoleucine, I) at the C-terminal. It is also noted that document D1 does not disclose that all of the peptides disclosed therein have tissue occluding properties. Furthermore, all of the peptides listed in paragraph [0080] of document D1 contain a hydrophobic tail of five neutral amino acids at the N-terminal end, as does the peptide

IIIIIEIKIEIKIEIK (see also bottom of page 57, information to SEQ ID 169). It is also noted that document D1 does not disclose that the said peptide is derived from any peptide disclosed in document D7. In order to arrive at the claimed subject-matter, the skilled person would have to form a link between the peptide suggested by the appellant and the use thereof in a tissue occluding composition, modify the structure by removing four of the five isoleucine residues from the hydrophobic tail at the N-terminal and by adding a single neutral amino acid to the C-terminal. Document D1 does not suggest these modifications in order to provide a tissue occluding composition according to claim 1 of the main request.

15. The appellant argued that all of the peptides falling within the general formulae (I) to (IV) of document D7 would, at least to some degree, self-assemble and thus be useful in tissue occluding compositions, irrespective of the exact structure. However, even if this were the case, the skilled person would still not expect the specific peptide IEIE13 to be an alternative to RADA16, for the reasons given above.
16. The provision of a tissue occluding composition according to claim 1 of the main request is, for these reasons, based on an inventive step. The main request thus meets the requirements of Article 56 EPC.
17. In summary, the board comes to the conclusion that the arguments brought forward by the appellant do not prejudice the maintenance of the patent as maintained by the opposition division.

*Reimbursement of part of the appeal fee*

18. According to Rule 103(4)(c) EPC, the appeal fee must be reimbursed at 25% if the request for oral proceedings is withdrawn within one month of notification of the communication issued by the Board of Appeal in preparation for the oral proceedings, and no oral proceedings take place. In the present case, the appellant notified the board on 24 January 2024, *i.e.* less than one month after the board's communication of 23 January 2024, of its intention not to attend the oral proceedings, and the oral proceedings did not take place. The board considers that it is only fair to interpret the declaration not to attend oral proceedings in the same way in the application of Rule 103(4)(c) EPC, as it does when it comes to cancelling the oral proceedings, *i.e.* as a withdrawal of the request for oral proceedings (see point 2. of this decision and decision T 0104/23, Reasons, point 11).
19. The appeal fee is therefore to be reimbursed at 25%.

## **Order**

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

1. The appeal is dismissed.
2. The appeal fee is to be reimbursed at 25%.

The Registrar:

The Chairman:



C. Rodríguez Rodríguez

P. Gryczka

Decision electronically authenticated