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**Datasheet for the decision
of 12 June 2013**

Case Number: T 1955/09 - 3.3.04

Application Number: 05769152.9

Publication Number: 1784206

IPC: A61K 38/17, A61K 31/04,
A61P 31/10

Language of the proceedings: EN

Title of invention:
Antimicrobial peptides derived from CAP18

Applicant:
OctoPlus Sciences B.V.
Academisch Ziekenhuis Leiden

Headword:
Antimicrobial peptides/OCTOPLUS SCIENCES

Relevant legal provisions:
EPC Art. 54(1), (3)

Keyword:
"Main request - Claim 1 - novelty (yes)"

Decisions cited:
G 0005/83, G 0002/88, G 0006/88, G 0002/08, T 0290/86,
T 0254/93, T 0542/96, T 0486/01, T 0836/01, T 0384/03,
T 1229/03, T 0509/04, T 1642/06

Catchword:
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Case Number: T 1955/09 - 3.3.04

D E C I S I O N
of the Technical Board of Appeal 3.3.04
of 12 June 2013

Appellant: OctoPlus Sciences B.V.
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NL-2333 CL Leiden (NL)

Appellant: Academisch Ziekenhuis Leiden
(Applicant 2) Albinusdreef 2
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Representative: Jansen, Cornelis Marinus
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 6 May 2009
refusing European patent application
No. 05769152.9 pursuant to Article 97(2) EPC.**

Composition of the Board:

Chairman: C. Rennie-Smith
Members: B. Claes
M. Montrone

Summary of Facts and Submissions

- I. The appeal was lodged by the applicants (hereinafter "appellants") against the decision of the examining division to refuse European patent application 05769152.9 with the title "*Antimicrobial peptides derived from CAP18*" which was published as international application WO 2006/011792.
- II. The examining division decided that the subject-matter of claim 1 of the sole request before them, which was filed with a letter dated 23 March 2009, lacked novelty (Article 54(1) EPC) over the disclosure in document (D1), i.e. WO 2004/067563, the disclosure of which was comprised in the prior art pursuant to Article 54(3) EPC.
- III. Independent claim 1 of the request before the examining division read:

"1. The use of a peptidic compound for the manufacture of a medicament for the prophylactic or therapeutic treatment of a bacterial or fungal infection of a mammal **by killing said bacteria or fungi**, wherein the compound comprises an amino acid sequence

$X_1\text{KEFX}_2\text{RIVX}_3\text{RIKX}_4\text{FLRX}_5\text{LVX}_6$, wherein

X_1 represents the N-terminal part;

X_2 is K or E;

X_3 is Q or E;

X_4 is D or R;

X_5 is N or E;

X_6 represents the C-terminal part;

wherein one or more of the amino acids of the core sequence are optionally derivatized, and wherein

- (a) the N-terminal part is acetylated, and/or
- (b) the C-terminal part is amidated, and/or
- (c) the amino acid sequence is different from
X₁KEFX₂RIVX₃RIKX₄FLRX₅LVX₆. "

(emphasis added by the board)

- IV. With the statement of the grounds of appeal dated 7 September 2009 the appellants filed a main request, which was identical to the request before the examining division (see sections II and III), and three auxiliary requests. The appellants argued in favour of novelty of the subject-matter of claim 1 of the main request.
- V. The appellants requested the board to set aside the decision under appeal and to order the grant of a patent on the basis the claims of the main request or the claims of one of the three auxiliary requests. It requested furthermore oral proceedings if the board intended not to order the grant of a patent on the basis the claims of the main request or of auxiliary request 1.
- VI. The appellants' arguments, insofar as they are relevant for the present decision, can be summarised as follows:

Main request - claim 1 - Novelty over document (D1)

Claim 1 of the main request was directed to a second medical use of a specified peptidic compound for the manufacture of a medicament for the prophylactic or therapeutic treatment of a bacterial or fungal infection by killing said bacteria or fungi.

Document (D1) disclosed that this peptidic compound may be used to neutralize toxins produced by bacteria or fungi. The document was silent regarding any antibiotic activity by those peptidic compounds and rather disclosed that the peptidic compounds might be used for medical indications, such as inner ear infections, where antibiotic therapy would be contra-indicated due to induction of tolerance and the selection of tolerant bacterial variants, the depression of the patient's natural defence systems, the impairment of the bacterial flora naturally populating the mucosae, and the release of large amounts of bacterial toxins as the germs are killed (see page 16, lines 16 to 21).

The novelty of a second medical use claim was not destroyed by the mere fact that the cited document refers to one or more diseases that can also be treated by the claimed invention (see decision G 5/83). In the case underlying decision T 836/01, wherein the claims to a second medical use were found novel even though the cited document and the claims both related to the treatment of (the same) cancer, the second medical use of interferon for influencing tumor cell growth and differentiation was found novel by the board despite the fact that the claims did not exclude the use of the drug in individuals with an intact immune system. The fact that the claimed technical effect on tumor cells was not the same as the technical effect disclosed in the prior document was sufficient to establish novelty.

In the context of a second medical use of claim 1, the expression "by killing bacteria and fungi" specified the mode of action for which the medicament was to be used, i.e. medical indications for which the desired

effect was to kill microbes. This was not merely an explanation how peptidic compounds neutralize toxins produced by bacteria and fungi, as disclosed in document (D1), but rather referred to a second medical indication which constituted a new clinical situation. The effect resided in the medical indication of a treatment of the infection as opposed to the treatment of toxins. This was analogous to the situation in decision T 836/01 which was also consistent with other decisions, such as decisions T 290/86 and T 1642/06.

Reasons for the Decision

1. The appeal is admissible.

Main request - claim 1 - Novelty over document (D1)

2. Claim 1 refers to a therapeutic application in the form allowed by the Enlarged Board of Appeal in decision G 5/83 (OJ EPO 1985, 64), i.e. in the form of the use of a substance or composition for the manufacture of a medicament for a defined therapeutic application. The board considers that this claim form is also allowable when taking into consideration the findings of the Enlarged Board of Appeal in its decision G 2/08 (OJ EPO 2010, 456; see point 7.1.4 of the reasons for the decision and Order, last paragraph).
3. The examining division denied the novelty of the subject-matter of claim 1 over the disclosure in document (D1), a document relevant under Article 54(3) EPC. Document (D1) disclosed the use of the same peptidic compounds for the

"diagnosis/prevention/therapy of a disease or condition involving, or resulting from, a fungal or bacterial infection, or the exposure to a fungal or bacterial toxin", whereby the infection was of the upper airways or the respiratory system. The feature "by killing said bacteria or fungi" of claim 1 had no limiting effect on the scope of the claim. Furthermore, the presence of bacterial/fungal cells and the secretion of toxins by these cells were concomitant events and the application did not identify a new distinguishable sub-group of patients unlike the situation underlying decision T 836/01 of 7 October 2003.

4. Document (D1) is concerned with the use of the peptidic compounds "*for the diagnosis, prevention or therapy of a disease or a condition involving, or resulting from, a fungal or bacterial infection or the exposure to a fungal or bacterial toxin*" (see *inter alia* claims 9 to 11). The underlying action of the peptidic compounds in these uses is their "*affinity for toxins and especially for fungal and bacterial toxins such as lipopolysaccharide (LPS) or lipoteichoic (LTA)*" and their ability to "*inhibit or neutralize such toxins*" (see page 1, lines 3 to 5).
5. The board notes that the appellants have not denied that document (D1) concerns the same compounds as those defined in claim 1 and furthermore, that the examining division has not argued that document (D1) discloses antibiotic activity of these compounds. The attained therapeutic effect of the use of the compounds defined in claim 1, namely the killing of bacteria or fungi, is not described in document (D1).

6. The attaining of a new technical effect is considered as a functional technical feature of a claim referring to the new use of a known substance. If that technical feature has not been previously made available to the public, then the claimed invention is novel, even though such technical effect may have inherently taken place in the course of carrying out what has previously been made available to the public (see decisions of the Enlarged Board of Appeal G 2/88 and G 6/88, OJ EPO 1993, 93 and 114; point (9) of the reasons for the decision).
7. This principle has been followed in a large body of case law of the boards on claims relating to second or further medical uses of a known substance, *inter alia* in decision T 290/86 (OJ EPO 1992, 414), decision T 542/96 of 11 May 2000, decision T 509/04 of 2 July 2005 and decision T 1229/03 of 23 November 2006, which all acknowledged novelty in the case at issue or in decision T 254/93 (OJ EPO 1998, 285); decision T 486/01 of 3 September 2003 and decision T 384/03 of 17 January 2006 which all denied novelty in the case at issue.
8. Since document (D1) and claim 1 are both concerned with the same peptidic compounds for treating the same disease, it needs therefore to be decided whether the use now claimed represents a further and different therapeutic use from the disclosure in document (D1).
9. Document (D1) disclosed the use of peptidic compounds for the purpose of inhibiting or neutralizing toxins produced by bacteria or fungi. Document (D1) thus teaches a **direct** effect of the compounds on the toxins produced. This is in clear contrast to the technical effect relied on by the claimed invention, namely the

- indirect** influence of the peptidic compounds on the production of the toxins via their antibiotic action against the toxin producing bacteria or fungi.
10. The conclusion can not be drawn that the technical effect relied upon by the claimed invention, i.e. the antibiotic effect, is a mere explanation of how the compounds inhibit or neutralize toxins. Rather, this effect identifies a new clinical situation, namely one in which it could be preferable to target the infection itself, not merely the toxins produced by the bacteria or fungi causing the infection (see also page 6 of the application, lines 16 to 26).
 11. The board notes that the above reasoning is analogous to the reasoning in two further decisions, i.e. T 836/01 of 7 October 2003 and T 1642/06 of 23 August 2007, on claims relating to second or further medical uses of a known substance and which acknowledged novelty in the case at issue based on the differentiation of a **direct** and **indirect** effect.
 12. In view of the foregoing, the board is satisfied that the subject-matter of claim 1 at issue fulfils the requirements of Article 54(1) and 54(3) EPC *vis-à-vis* the disclosure in document (D1).
 13. The main request contains further claims 2 to 16, depending on claim 1, and independent claim 27. The examining division stated in its decision that the issue of novelty of claim 1 over document (D1) was the only outstanding objection, after having heard the applicants in oral proceedings (see point 7 of the impugned decision). The board also has no objections.

14. In view of the outcome of this appeal and the requests of the appellants (see section V), the board has decided to issue this decision without hearing the appellants in the matter.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of first instance with the order to grant a patent on the basis of claims 1 to 27 of the main request filed with the letter of 7 September 2009 and a description and figure to be adapted thereto.

The Registrar

The Chairman

P. Cremona

C. Rennie-Smith