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Reference T35074PCEPT1	Application No./Patent No. 01102715.8 - 1212 / 1103268
Applicant/Proprietor TERMAN, David S., et al	

**Communication to the parties concerning termination of opposition proceedings**

No appeal against the decision dated 19.11.09 to discontinue the opposition proceedings has reached the files within the time limit for appeal.

The opposition proceedings are accordingly terminated and the European patent is maintained unamended.

**For the Opposition Division**



## Interlocutory Decision (Article 101(3) EPC)

### Facts and Submissions

#### I.

European patent EP 1 103 268 B1, Application number 01102715.8, entitled "Use of staphylococcal enterotoxins or related compounds for cancer treatment" (hereinafter: the patent) was granted on 31 August 2005 with 10 claims for the designated Contracting States AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL and SE.

D. Terman and J. Stone are the Proprietors.

The Opponent (Active Biotech AB), represented by Mrs. S. Roques of J A Kemp & Co., opposed the patent EP 1 103 268 B1 in its whole extent under Articles 100(a) and 100(c) EPC.

The Proprietors (D. Terman and J. Stone), represented by Dr. H. Wichmann of Patentanwälte Isenbruck Bösl Hörschler Wichmann Huhn, requested with the telefax of 26 May 2008 as the main request that the patent be maintained on the basis of claims 1 to 3 and the description as published and as the first auxiliary request that the patent be maintained on the basis of claims 1 to 3 and an amended description.

The independent claim 1 of both requests reads:

**"Use of a *Staphylococcus aureus* enterotoxin (SE) by themselves, or a fragment of an SE that stimulates T cells via the T cell receptor (VCR) V $\beta$  region by themselves, in the manufacture of a medicament for administration to a patient to treat carcinoma."**

The numbering of the cited documents follows the numbering submitted by the Proprietors with the telefax of 26 May 2008. The most relevant documents for the decision are:

- D1: WO 91/10680 (application as filed)
- D2: US application serial No. 07/416530 ("grandparent" application)
- D9: WO 91/04053, filed on 14.09.90 and published on 4.04.91

- D10: Shcheglovitova et al. (1989) EKSP ONKOL **11(1)**: 73, 74, 79 - English translation.
- D11: Shcheglovitova et al. (1989) EKSP ONKOL **11(1)**: 73, 74, 79 - Original Russian publication.
- D16: Terman DS, Stone JS. Staphylococcal and streptococcal exotoxin (superantigen) induced regression of established tumor in vivo. Proceedings of International Workshop on Superantigens. Cancer Research Institute, New York, N.Y. 1993; p.12-14.
- D19: Iandolo JJ Genetic Analysis of Extracellular Toxins of Staphylococcus Aureus. Annu. Rev. Microbiol. **43**: 375-402. 1989.
- D38: Terman DS et al., Eur. J. Cancer Clin. Oncol. **21(10)**: 1115-22, 1985.
- D39: Terman, DS, Methods in Enzymology **137**: 496-515, 1988.

## II.

The Opponent requested that the patent be revoked in its entirety pursuant to Articles 100(a) and 100(c) EPC.

Essentially, the Opponent put forward the following facts and arguments, still relevant to the subject matter of the requests on file:

The subject matter of the patent extends beyond the content of the earlier application as filed (Article 100(c) EPC), since there was no basis for the amendment in claim 1, which refers generally to the treatment of carcinomas (Article 76(1) EPC).

It was furthermore argued that the correction of the sequences in figure 1 would not be allowable in view of Rule 139 EPC (Rule 88 EPC 1973) and Article 123(2) EPC.

The Opponent has contested the novelty of the subject matter of claim 1 over the teaching of D9, a document cited under Article 54(3) EPC.

The Opponent has argued that the subject matter of present claims 1 to 3 would not be inventive in view of the disclosure of document D10 (English translation of D11), which was regarded as the closest prior art.

## III.

Conversely, the Proprietors requested rejection of the opposition and maintenance of the patent on the basis of the main request of claims 1 to 3 and the description as published or on the basis of the first auxiliary request of claims 1 to 3 and an

amended description. In the auxiliary request, pages 3, 4, 8, 9, 11 22 have been amended, while the original figure 1 has been deleted and the remaining figures have been renumbered.

The Proprietors have submitted that none of the documents on file refers to the treatment of carcinomas with staphylococcal enterotoxins. In addition, the Proprietors argued that the claimed subject matter was inventive, since the closest prior art (D10) failed to show any antitumor effect. The amendment of figure 1 was submitted to be based on the common general knowledge of the person skilled in the art.

#### IV.

Both parties had requested oral proceedings. Oral proceedings were scheduled for the 4 June 2008. However, these oral proceedings were cancelled following the withdrawals of the requests for oral proceedings by both parties.

### Reasons for the Decision

#### Admissibility

- 1 The opposition is admissible, since it fulfils the requirements of Articles 99(1) and 100 EPC and of Rules 3(1) and 76 EPC.

### MAIN REQUEST

#### Amendments

#### Article 76 EPC

- 2.1 The Opponent has argued that there was no basis for the amendment of claim 1, which refers generally to the treatment of carcinomas.  
The Proprietor has submitted that there is basis for this amendment, in particular pointing to the example of the present specification.

The Opposition Division came to the conclusion that the amendment of claim 1

meets the requirements of Article 76 EPC, since the example of the patent refers to the use of VX-2 carcinomas in rabbits, which are considered to be a good model for human carcinomas (cf. D1, parent application as filed, pages 35-36). The parent application as filed also refers to the expectation that the "data given herein for rabbits with carcinoma is expected to be predictive of success when the compositions are applied to humans with spontaneous tumors as well" (cf. D1, parent application as filed, page 52).

### **Article 123(2) EPC**

- 2.2 The Opponent has argued that the correction of the sequences in figure 1 would not be allowable in view of Rule 139 EPC (Rule 88 EPC 1973) and Article 123(2) EPC.

The Proprietor has submitted that the correct sequences of the enterotoxins have been common general knowledge and that for this reason the correction is allowable.

The Opposition Division is of the opinion that the correction of the sequences in figure 1 does not meet the requirements of Article 123(2) EPC.

Although the Opposition Division had earlier indicated its opinion that sequences deposited in the relevant databases are part of the common general knowledge, no evidence to this effect had been brought forward by the Proprietors.

The Opposition Division therefore came to the conclusion that the amendment of figure 1 is not acceptable, since the document (D19), on which the Proprietors rely for the correction, is neither a textbook nor a database entry, and therefore cannot be considered to reflect the common general knowledge. The information content of an isolated scientific article cannot be given the same authority as a textbook or a curated database.

Consequently, the main request does not meet the requirements of Article 123(2) EPC, since the amendment of figure 1 extends beyond the content of the application as originally filed. This deficiency prejudices the maintenance of the patent based on the main request of claims 1 and 3 and the description as published.

### **AUXILIARY REQUEST**

## Amendments

### Article 76 EPC

- 2.3 The Opposition Division came to the conclusion that the amendment of claim 1 meets the requirements of Article 76 EPC for the same reasons as given in the case of the main request (cf. paragraph 2.1, *supra*).

### Article 123(2) EPC

- 2.4 The disputed figure 1 of the main request is not part of the auxiliary request. None of the other amendments introduced in the description extends beyond the content of the application as filed.  
Therefore, the auxiliary request meets the requirements of Article 123(2) EPC.

### Article 123(3) EPC

- 2.5 The amended claims of the auxiliary request are identical to the claims 1 to 3 as granted and therefore do not extend the protection conferred by the European patent as required by Article 123(3) EPC.

## Priority right: Article 87 EPC

- 2.6 The priority (US 07/466577 of 17 January 1990) is not valid in view of the overlapping "grandparent" application D2 (US416530). D1 also refers to the priority document (US 07/466577) as a continuation-in-part of D2. However, both parties agree that the priority is not valid and that the relevant date for the assessment of novelty and inventive step is the filing date of the patent.

## Novelty

- 2.7 The Opponent has contested the novelty of the subject matter of claim 1 over the

teaching of D9, a document cited under Article 54(3) EPC.

The Proprietor has replied that D9 does not refer to carcinomas and does not exemplify an animal model of carcinomas.

The Opposition Division came to the conclusion that D9 does not take away the novelty of the subject matter of claims 1 to 3, since the document does not explicitly refer to the treatment of carcinomas, but rather is concerned with treatment of different malignant tissues, such as lymphoma and melanomas. The person skilled in the art would not understand the content of document D9 as referring to the treatment of carcinomas. In addition, the specific examples are relating to cells derived from a lymphoma, which is not a carcinoma.

### **Inventive step**

2.8 The Opponent has argued that the subject matter of present claims 1 to 3 would not be inventive in view of the disclosure of document D10 (English translation of D11), which was regarded as the closest prior art.

The Proprietor argued that document D10 was not prejudicial to an inventive step, since it failed to demonstrate antitumor effect.

The Opposition Division arrived at the conclusion that the subject matter of claims 1 to 3 is based on an inventive step as required by Article 56 EPC, since the person skilled in the art at the date of filing would not have been expected to be successful in the claimed treatment of carcinomas using staphylococcal enterotoxins.

The Opposition Division considers document D10 as the closest prior art, because it addresses the same technical problem and has the most technical features in common with the patent at issue. Document D10 relates to attempts to treat a carcinoma in a mouse model with staphylococcal enterotoxins.

The difference between the patent and the closest prior art resides in the fact that the patent actually demonstrates that staphylococcal enterotoxins can be used to treat carcinomas, whereas in document D10 the results are at best ambiguous.

The problem to be solved by the present patent can be regarded as the provision of new means to treat carcinomas in humans.

The solution given by the subject matter of claim 1 consists of the use of staphylococcal enterotoxins for the preparation of medicaments for administration

to patients to treat carcinomas. The specification shows that staphylococcal enterotoxins can actually be used to treat carcinomas (cf. D1, pages 38, 39). Hence, the technical problem is solved by the subject matter of claim 1. Several statements in document D10 would discourage the skilled person to pursue the use of enterotoxins in the treatment of carcinomas, especially the reference to the lack of statistic reliability of the obtained results (cf. D10, page 3, last sentence of second paragraph).

Therefore, the closest prior art casts doubt on the usefulness of enterotoxins in the treatment of carcinomas. While the person skilled in the art of course could have continued to work in this direction, there is no reason why the skilled person would have actually done so, especially considering the discussion of the negative results in document D10 and having regard of the absence of other indicators. The Opponent has submitted that further documents suggested using staphylococcal enterotoxins to treat carcinomas (e. g. D38, D39). However, the relevant statements in these documents do not go beyond the speculation ("thought") that staphylococcal enterotoxins "contribute significantly to the antitumor effects and the toxicity of the procedure" (cf. e. g. D39, page 498, first paragraph). Hence, neither D10 alone nor any combination of D10 with one of the other documents on file would incite the skilled person to use staphylococcal enterotoxins in the treatment of carcinomas in patients.

### **Decision**

The Proprietors approved the text of the auxiliary request forming the basis of the present interlocutory decision.

The grounds of opposition under Article 100(a) and (c) EPC do not prejudice maintenance of the patent in amended form.

The Opposition Division therefore is of the opinion that, taking into account the amendments made, the patent and the invention, to which it relates, meet all the requirements of the EPC.